Environmental Assessment

Stand-Up and Operations of the

Maritime Safety and Security Team

San Diego, California

Commandant

United States Coast Guard (G-OPC)

December 2004

USCG

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

FOR

U.S. COAST GUARD STAND-UP AND OPERATIONS OF THE MARITIME SAFETY AND SECURITY TEAM IN SAN DIEGO, CALIFORNIA

The Proposed Action includes the stand up and operations of one Maritime Safety and Security Team (MSST) located at the Port of San Diego, California. The MSST will be homeported at the Marine Corps Recruit Depot (MCRD). The MSST will consist of approximately 76 active duty personnel and six Defender Class Boats. All six Defender Class Boats can, but will not necessarily, operate at once. The Defender Class Boats will have two 225 horsepower outboard motors, will be 25 feet in length, will be highly maneuverable, will be capable of quickly reaching and sustaining high speeds (in excess of 40 knots), and will carry three crewmembers, plus a maximum of seven passengers. Other requirements will include, but not be limited to, communication equipment, protection for the crew, and defensive weaponry.

The MSST will normally conduct operations in the Port of San Diego and the coastal waters from the U.S./Mexico border to Dana Point. The MSST Defender Class Boats would be launched primarily from a boat ramp at the MCRD Marina. The MSST is intended for domestic operations, in support of the Group or Captain of the Port (COTP). Operations will closely parallel existing U.S. Coast Guard (USCG) traditional port security operations, but will provide complimentary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports. The MSST will escort a variety of vessels and maintain specific security zones. It will be capable of operating seven days a week, 24 hours a day, in all weather conditions. It will also operate with, and be supported by, both military and civilian government organizations and commercial and non-governmental entities. The MSST will be transportable via land transportation, USCG cutter, and USCG or other military aircraft.

This project has been thoroughly reviewed by the USCG and it has been determined by the undersigned that this project will have no significant impact on the human environment.

This finding of no significant impact (FONSI) is based on the attached contractor prepared environmental assessment (EA) which has been independently evaluated by the USCG and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project and provides sufficient evidence and analysis for determining that an environmental impact statement is not required. The USCG takes full responsibility for the accuracy, scope, and content of the attached environmental assessment.

_____	_____	_____
Date	Environmental Reviewer	Title/Position

I have considered the information contained in the EA, which is the basis for this FONSI. Based on the information in the EA and this FONSI document, I agree that the proposed action as described above, and in the EA, will have no significant impact on the environment.

_____	_____	_____
Date	Responsible Official	Title/Position

Abbreviations and Acronyms

°C	degrees Celcius
°F	degrees Fahrenheit
APLMRI	Atlantic Protected Living Marine Resources Initiative
AQCR	Air Quality Control Region
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CEU	Civil Engineering Unit
CFR	Code of Federal Regulations
CO	carbon monoxide
COMDTINST	Commandant Instruction
COTP	Captain of the Port
CPS	Coastal Pelagic Species
CWA	Clean Water Act
dB	decibel
DGPS	Differential Global Positioning System
DHS	U.S. Department of Homeland Security
DNL	Day-Night Average Sound Level
DOD	U.S. Department of Defense
DOT	U.S. Department of Transportation
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FFMZ	Federal Fishery Management Zones
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
ft²	square feet
FY	fiscal year
hp	horsepower
HS2	Health Services Technician, 2nd Class
Hz	Hertz
kHz	kilo-Hertz
Leq(24)	24-hour Equivalent Sound Level
m	meters
m/s	meters per second
MCRD	Marine Corps Recruit Depot
mg/m^3	milligrams per cubic meter
MHS	Maritime Homeland Security
MMPA	Marine Mammal Protection Act
MOA	Memorandum of Agreement
MSA	Magnuson-Stevens Fisheries Conservation and Management Act
MSST	Maritime Safety and Security Team
MTS	U.S. Marine Transportation System
MTSA	Maritime Transportation Security Act
NAAQS	National Ambient Air Quality Standards
NCCR	National Coastal Condition Report
NEPA	National Environmental Policy Act
NERR	National Estuarine Research Reserve
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NO_x	nitrogen oxide
NP	National Park
NPS	National Park Service
NSR	New Source Review
NWR	National Wildlife Refuge
O_3	ozone
P.L.	Public Law
Pb	lead
PBR	potential biological removal
PM_{10}	Particulate Matter ≤ 10 microns in diameter
ppm	parts per million
ROI	Region of Influence
SAE	Society of Automotive Engineers
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO_2	sulfur dioxide
SP	State Park
SPL	Sound Pressure Level
tpy	tons per year
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USCG	United States Coast Guard
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VOC	Volatile Organic Compounds
$\mu g/m^3$	micrograms per cubic meter
µPa	microPascal
µPa-m	microPascal at 1 meter

ENVIRONMENTAL ASSESSMENT OF THE STAND UP AND OPERATION OF THE MARITIME SAFETY AND SECURITY TEAM SAN DIEGO, CALIFORNIA

Contract No.: DTCG23-02-D-EXB001

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ENVIRONMENTAL ASSESSMENT OF THE STAND UP AND OPERATION OF THE MARITIME SAFETY AND SECURITY TEAM SAN DIEGO, CALIFORNIA

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1.1 Introduction

The United States Coast Guard (USCG) is proposing to stand up (establish and operate) a Maritime Safety and Security Team (MSST) at the Port of San Diego, California. MSSTs provide waterborne (and a modest level of shoreside) antiterrorism force protection for strategic shipping, high-interest vessels and critical infrastructure. MSSTs are a quick response force capable of rapid, nationwide deployment via air, ground, or sea transportation in response to changing threat conditions and evolving Maritime Homeland Security (MHS)[1] mission requirements. The MSST's primary missions are port safety and security and maritime law enforcement. Secondary missions are search and rescue and naval coastal warfare (USCG 2004). The MSST would consist of 76 active-duty personnel, interior modifications to existing support buildings, six Defender Class Boats, and other support equipment (see Section 2.1 for a detailed description of the Proposed Action).

The USCG, one of the country's five armed services, is this nation's oldest maritime agency, and is a unique agency of the Federal government. The USCG was formed on August 4, 1790, when the first Congress authorized the construction of ten vessels to enforce tariff and trade laws, prevent smuggling, and protect the collection of the Federal revenue. Known as the Revenue Marine and the Revenue Cutter Service, the USCG expanded in size and responsibilities as the nation grew. These added responsibilities included humanitarian duties such as aiding mariners in distress, enforcing laws against slavery and piracy, protecting the marine environment, exploring and policing Alaska, and charting the growing nation's coastlines, all well before the turn of the 20th century.

The service received its present name in 1915 when the Revenue Cutter Service merged with the Life-Saving Service. The nation then had a single maritime service dedicated to saving lives at sea and enforcing the nation's maritime laws. The USCG has continued to protect the nation throughout its long history and has served proudly in every one of the nation's conflicts. National defense responsibilities remain one of the USCG's most important functions.

[1] Maritime Homeland Security (MHS) is the concerted national effort lead by the U.S. Coast Guard to secure the homeland associated with or in the U.S. Maritime Domain from terrorist attacks.

Today, the USCG operates in all maritime regions:

- Approximately 95,000 miles of U.S. coastlines, including inland waterways and harbors.
- More than 3.36 million square miles of Exclusive Economic Zone (EEZ) and U.S. territorial seas.
- International waters and other maritime regions of importance to the United States.

The events of September 11, 2001, significantly changed the nation's homeland security posture. Terrorism is a clear and present danger to the United States. On March 1, 2003, in response to growing national security demands, the newly formed U.S. Department of Homeland Security (DHS) assumed control of the USCG from the U.S. Department of Transportation (DOT) in the largest reorganization of the Federal government since the 1940s (Public Law [P.L.] 107-296). The USCG is the lead Federal agency for Maritime Homeland Security and has dramatically shifted its mission activity to reflect this role. The USCG's heightened maritime security posture will remain in place indefinitely.

1.2 Coast Guard Missions

The USCG is unique in that it is the only maritime service with regulatory and law enforcement authority, military capabilities, and humanitarian operations. USCG activities in warfare encompass critical elements of naval operations in littoral regions, including port security and safety, military environmental response, maritime interception, coastal control, and force protection. More than two centuries of littoral warfare operations at home and overseas have honed the USCG's skills most needed in support of the nation's military and naval strategies for the 21st century. The USCG's missions include maritime law enforcement, maritime safety, national defense, and marine environmental protection.

Under the newly formed DHS, one of the USCG's primary missions is to protect the U.S. Maritime Domain[2] and the U.S. Marine Transportation Systems[3] (MTS) and deny their use and exploitation by terrorists as a means for attacks on U.S. territory, population, and critical infrastructure. The Maritime Transportation Security Act (MTSA) of 2002 contains several provisions relating to the

[2] The U.S. Maritime Domain encompasses all U.S. ports, inland waterways, harbors, navigable waters, Great Lakes, territorial seas, contiguous waters, custom waters, coastal seas, littoral areas, the U.S. Exclusive Economic Zone, and oceanic regions of U.S. national interest, as well as the sea lanes to the United States, U.S. maritime approaches, and high seas surrounding the nation.

[3] The U.S. Marine Transportation Systems (MTS) consists of waterways, ports, and their intermodal connections; vessels; vehicles; and system users, as well as Federal maritime navigation systems.

USCG's role in MHS. It creates a U.S. maritime security system and requires Federal agencies, ports, and vessel owners to take numerous steps to upgrade security. The MTSA required the USCG to develop national and regional area maritime transportation security plans; it also required ports, waterfront terminals, and certain types of vessels to submit security and incident response plans to the USCG for approval.

The USCG also has several additional roles:

- Protect ports, the flow of commerce, and the marine transportation system from terrorism.
- Maintain maritime border security against illegal drugs, illegal aliens, firearms, and weapons of mass destruction.
- Ensure that U.S. military assets can be rapidly deployed and resupplied, by keeping USCG units at a high state of readiness, and by keeping marine transportation open for the transit of assets and personnel from other branches of the armed forces.
- Protect against illegal fishing and indiscriminate destruction of living marine resources.
- Prevent and respond to oil and hazardous material spills—both accidental and intentional.
- Coordinate efforts and intelligence with Federal, state, and local agencies.

In response to the increased homeland security threat level, the USCG is engaged in Operations Liberty Shield and Iraqi Freedom. Operation Liberty Shield is a multidepartment, multi-agency, national team effort to protect American citizens and infrastructure while minimizing disruption to our economy and way of life. The USCG is integrating its efforts within DHS and closely coordinating its efforts with those of the U.S. Department of Defense (DOD); DOT; the Federal Bureau of Investigation; and other Federal, state, and local security and law enforcement agencies to ensure the security of national ports, waterways, and facilities. Hundreds of USCG cutters, aircraft, and small boats manned by thousands of USCG active-duty and reserve members are guarding coasts, ports, and waterways around the clock during this heightened state of alert.

Overseas, the USCG is playing a crucial role supporting the other military services in the implementation of Operation Iraqi Freedom. Several USCG cutters, aircraft, reserve, and active-duty personnel are currently deployed in the Persian Gulf region and in the Mediterranean to perform waterside security, maritime force protection, and environmental response duties.

In addition, the USCG and DOD are partners in two major actions: Operation Enduring Freedom and Operation Noble Eagle. Operation Enduring Freedom generally refers to U.S. military operations associated with the war on terrorism outside the United States. Operation Noble Eagle generally refers to U.S. military operations associated with homeland defense and civil support to Federal, state,

and local agencies in the United States, and includes the increased security measures taken after the terrorist attacks on September 11, 2001. The operation involves joint agency coordination and cooperation to ensure our nation and its borders are protected from future attacks. The increased USCG maritime security presence prevents and deters those who would cause harm to innocent Americans.

1.3 Purpose and Need for the Action

1.3.1 Purpose of the Action

The USCG is at a heightened state of alert, protecting more than 361 ports and 95,000 miles of coastline, the nation's longest border. The USCG continues to play an integral role in maintaining the operations of our ports and waterways by providing a secure environment in which mariners and the American people can safely live and work (USCG 2002a).

The establishment of additional MSSTs would allow the USCG to perform all of its missions, especially the newly acquired homeland security missions. The MSSTs are needed to improve existing domestic port security capabilities. While the MSSTs would be used to augment existing USCG forces in the United States, the MSSTs would not duplicate existing protective measures. They would provide complementary, nonredundant capabilities that would be able to close significant readiness gaps in the nation's strategic ports (USCG 2002b, USCG 2002c). USCG forces must accomplish this mission without adversely impacting the environment or unduly interfering with legitimate trade and commerce.

To determine which ports require additional protection, the USCG and other agencies developed a matrix to assess and "grade" each U.S. port to aid in the selection of the most critical ports. Elements that were assessed included (USCG 2002b)

- Cargo Value
- Cargo Volume
- Domestic Cargo
- Hazardous Cargo
- Military Presence
- Population

The first eight MSSTs are in Seattle, Washington; Chesapeake, Virginia; San Pedro, California; Galveston, Texas; Staten Island, New York; Boston, Massachusetts; St. Mary's, Georgia; and San

Francisco, California. The next round of ports to be assigned MSSTs are New Orleans, Louisiana; San Diego, California; Honolulu, Hawaii; Miami, Florida; and Anchorage, Alaska. In addition to these ports, the USCG is planning to stand up MSSTs in other critical ports around the country. If additional MSSTs are established around the country, additional National Environmental Policy Act (NEPA) analysis will be prepared for future stand-ups, as necessary.

1.3.2 Need for the Action

The USCG has a broad range of environmental and geographic responsibilities throughout the EEZ. In the wake of the events of September 11, 2001, the USCG assumed homeland security duties in addition to their current missions. Unfortunately, manpower and vessels to perform all missions, including these additional operations, remained the same. Currently, USCG resources are at maximum capacity and all missions (e.g., maritime border security, fisheries enforcement, and living marine resources protection) suffer, despite the USCG's attempt to maintain the previous level of effectiveness and efficiency. In some cases, current detachments of MSSTs have been temporarily assigned to other ports, leaving a detachment at the homeport to perform "double duty." When the away detachment returns, neither detachment has had the ability to rotate through a rest period, resulting in an increased demand on manpower resources. If implemented, the Proposed Action would increase port security within the Port of San Diego and allow other USCG assets to focus on their intended missions more effectively and efficiently, since the MSST's primary responsibility would be port security and maritime law enforcement. The Proposed Action would also allow more MSSTs to remain in their homeports and maintain a regular work/rest cycle.

In 2002, under P.L. 107-87, an emergency response supplemental enacted by Congress, funds were appropriated to support USCG antiterrorist activities, including the mandated establishment and operation of four MSSTs to be completed in Fiscal Year (FY) 2002. The establishment of MSSTs in Seattle, Washington; San Pedro, California; Galveston, Texas; and Chesapeake, Virginia, helped relieve some of the demand on USCG units. However, a number of ports require further protection. Congress strongly indicated its desire that the USCG establish MSSTs on a priority basis. P.L. 107-117 provided money for the express purpose of having the USCG (in consultation with other agencies) establish four MSSTs before FY 2003. The Senate Appropriations Committee approved a $76 million budget for seven MSSTs in FY 2004 (Senate Report 108-086).

1.4 Project Scope and Area

The MSST would be permanently homeported at the Marine Corps Recruit Depot (MCRD) on Belleau Avenue, San Diego, California (Figure 1-1). The MSST Defender Class Boats would be launched from boat ramps at the MCRD Marina, Shelter Island, National City, Chula Vista, and Mission Bay.

The Region of Influence (ROI) for the Proposed Action and the No Action Alternative is geographically defined as the Port of San Diego region, which includes the coastal waters from the U.S./Mexican border north to Dana Point (Figure 1-2). The MSST is expected to spend the majority of its operating time patrolling the Port of San Diego; however, the MSST can be deployed temporarily in emergencies to protect any port facility or asset outside of the ROI. The location and duration of each individual event would depend on a number of currently unknown circumstances. There are too many variables to adequately assess all potential ports to which the MSST might be temporarily assigned. Therefore, this Environmental Assessment (EA) focuses on the potential environmental impacts within the ROI.

1.5 Agency and Public Involvement Process

An advertisement published in the *San Diego Union-Tribune* on September 1, 2004, announced the USCG's intent to prepare an EA, giving information on the proposal and seeking comments. Letters to interested parties were also mailed to appropriate Federal, state, and local agencies on September 2, 2004 (see Appendix A [interested party letter with attachments, distribution list, and newspaper announcement], Appendix B [agency consultation letters]). No comments were received; however, the USCG will continue to accept comments on this Proposed Action throughout the NEPA process (discussed in Section 1.6.1). The announcement of availability for the Final EA will also be placed in the *San Diego Union-Tribune*.

1.6 Summary of Key Environmental Compliance Requirements

1.6.1 National Environmental Policy Act of 1969

The National Environmental Policy Act of 1969, commonly known as NEPA, is a Federal statute requiring the identification and analysis of potential environmental impacts of proposed Federal actions before those actions are taken. NEPA also established the Council on Environmental Quality (CEQ), which is charged with the development of implementing regulations and ensuring agency

Figure 1-1. San Diego MSST Homeport Location Map

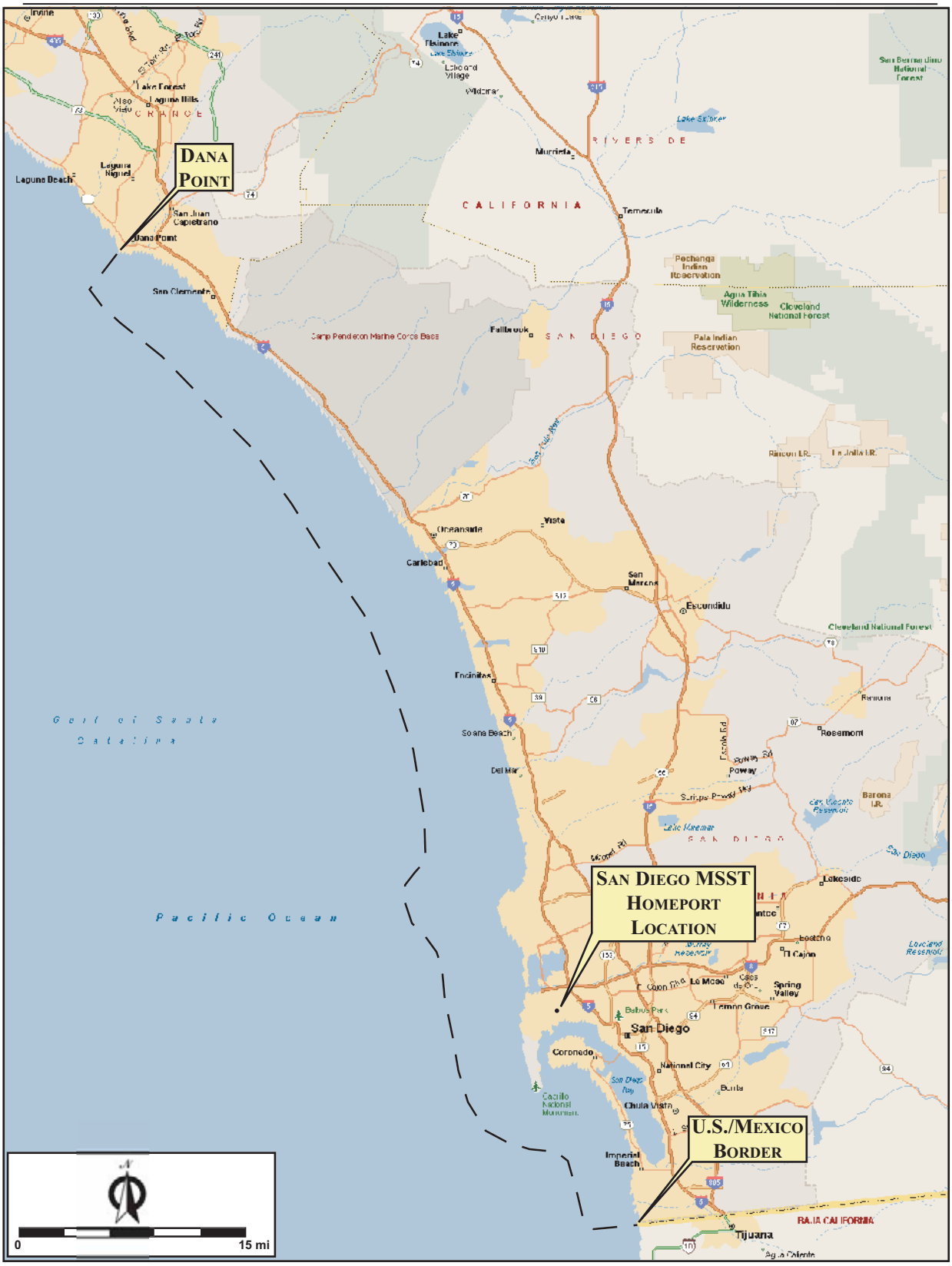

Figure 1-2. San Diego MSST Region of Influence

compliance with NEPA. CEQ regulations mandate that all Federal agencies use a systematic interdisciplinary approach to environmental planning and the evaluation of actions that might affect the environment. This process evaluates potential environmental consequences associated with a proposed action and considers alternative courses of action. The intent of NEPA is to protect, restore, or enhance the environment through well-informed Federal decisions.

The process for implementing NEPA is codified in Title 40 of the Code of Federal Regulations (CFR) Parts 1500-1508, *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act*. The CEQ was established under NEPA to implement and oversee Federal policy in this process. CEQ regulations specify that the following must be accomplished when preparing an EA:

- Briefly provide evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a FONSI.
- Aid in an agency's compliance with NEPA when an EIS is unnecessary.
- Facilitate preparation of an EIS when one is necessary.

This document has been prepared to comply with NEPA requirements, the CEQ regulations for implementing NEPA, and USCG policy (Commandant Instruction [COMDTINST] M16475.1D).

1.6.2 Integration of Other Environmental Statutes and Regulations

To comply with NEPA, the planning and decision making process for actions proposed by Federal agencies involves a study of other relevant environmental statutes and regulations. The NEPA process, however, does not replace procedural or substantive requirements of other environmental statutes and regulations. It addresses them collectively in the form of an EA or an EIS, which enables the decision maker to have a comprehensive view of major environmental issues and requirements associated with the Proposed Action. According to CEQ regulations, the requirements of NEPA must be integrated "with other planning and environmental review procedures required by law or by agency so that all such procedures run concurrently rather than consecutively." Resources that will be analyzed in the EA were those identified as being potentially affected by the Proposed Action, and include applicable critical elements of the human environment whose review is mandated by Executive Order (EO), regulation, or policy (see Appendix C).

1.7 Organization of the EA

Acronyms and abbreviations are used throughout the document to avoid unnecessary length. A list of acronyms and abbreviations can be found on the inside front and back covers of this EA.

Chapter 1: Purpose and Need for the Action. As a NEPA-required discussion, this chapter provides an overview of the action and the purpose and need of the action, describes the area in which the Proposed Action would occur, and explains the public involvement process.

Chapter 2: Proposed Action and Alternatives. This chapter describes the Proposed Action, alternatives considered, and the No Action Alternative.

Chapter 3: Affected Environment. This chapter describes the existing environmental conditions in the area in which the Proposed Action would occur.

Chapter 4: Environmental Consequences. Using the information in Chapter 3, this chapter identifies potential direct and indirect environmental impacts on each resource area under the Proposed Action and the No Action Alternative. Direct and indirect impacts that could result from the Proposed Action are identified on a broad scale as appropriate in an EA.

Chapter 5: Cumulative Impacts. This chapter discusses the potential cumulative impacts that might result from the impacts of the Proposed Action, combined with foreseeable future actions.

Chapters 6 and 7: These chapters provide references and a list of this document's preparers.

Appendices: This EA includes six appendices that provide additional information. Appendix A is a copy of the Interested Party distribution list, letter with attachments, and a copy of the newspaper announcement. Appendix B includes the correspondence relating to Endangered Species Act (ESA) consultation, Essential Fish Habitat (EFH) consultation, National Historic Preservation Act, and Federal Coastal Zone Management Consistency determination. Appendix C is a list of those regulations, laws, and EOs that might reasonably be expected to apply to the Proposed Action. Appendix D contains a description of the USCG's Ocean Steward Plan and COMDTINSTs regarding the Protected Living Marine Resource Program (16475.7) and Participation in the National Marine Sanctuary Programs (16004.3A). Appendix E includes the calculations used for the air quality analysis; Appendix F contains a description of protected and sensitive habitats in the region potentially affected by the Proposed Action.

2. Proposed Action and Alternatives

2.1 Proposed Action

2.1.1 Overview of the Proposed Action

The USCG proposes to stand up an MSST at the Port of San Diego. The term "stand up" is defined as establishing and operating a new activity. The Proposed Action consists of the following components:

- Assignment of 76 active-duty personnel to operate the MSST within the Port of San Diego and the ROI. In addition, the Health Services Technician, 2nd Class (HS2) support billet would be assigned to the MSST.
- Standard MSST equipment to include six Defender Class Boats and trailers, four pickup trucks, four stakebed trucks, three passenger vans, and other minor support equipment.
- Interior renovations to Buildings 239 and 310 at the MCRD.

2.1.2 MSST Personnel and Operations

The MSST would consist mostly of reassigned personnel, although there might be some newly recruited personnel. MSST personnel would possess the specialized skills, capabilities, and expertise to perform a broad range of port security and harbor defense missions that might be required. The MSST would be interoperable with, and supported by, military and civilian government organizations, and commercial and nongovernmental entities.

The MSST would operate primarily within its ROI, which is defined as the Port of San Diego and the coastal waters from the U.S./Mexico border to Dana Point. The MSST could also be deployed temporarily in emergencies to other ports as needed. Depending on operational requirements, there could be two to six boats operating at any time. However, it is anticipated that the Defender Class Boats would operate 12 hours a day, 7 days per week, and that there would be two to three boats operating at any given period. The Defender Class Boats would be launched primarily from a boat ramp at the MCRD Marina (Figures 2-1 and 2-2), but might also be launched from public boat ramps at Shelter Island, National City, Chula Vista, or Mission Bay. The MSST would primarily be responsible for patrolling the established ship channels and escorting tankers and cruise ships. The travel time from Building 239 to the MCRD Marina is less than 2 minutes by car.

Figure 2-1. Photographs of Boathouse at MCRD Marina

Figure 2-2. Photographs of Boat Ramp at MCRD Marina

The MSST would provide an extensive military presence. Activities would be comparable to those undertaken by other MSSTs including patrolling the established ship channels, establishing moving security zones around specific vessels, and military outloads. The USCG performs these traditional port security operations on a daily basis and USCG personnel would follow procedures already familiar to them. The MSST would have additional responsibilities as follows:

- Enhance port security and security law enforcement capabilities at economic or military significant ports.
- Deploy for specific episodic events that require an increased security posture of a limited duration.
- Exercise security contingency plans in major ports.
- Augment the Captain of the Port's (COTP) capabilities.

The MSST would be prepared to conduct operations through all maritime security levels, be capable of operating under the threat of chemical, biological, or radiological attack, and be able to evacuate a contaminated environment. The MSST would have the ability to conduct emergency gross decontamination of personnel and equipment. In the United States, the local emergency response agency is responsible for mitigating incidents involving chemical, biological, and radiological hazardous materials. Overseas support is provided through a Memorandum of Understanding with other service branches.

2.1.3 Standard MSST Boats and Equipment

The MSST would be equipped with six Defender Class Boats and standard support vehicles and equipment. Each Defender Class Boat is 25 feet long with an 8-foot beam and a 4-foot navigational draft and would be equipped with two 225-horsepower (hp) Honda outboard motors, radar, depth sounder, differential global positioning system (DGPS), and two mounted M240 machine guns (Figure 2-3). The Defender Class Boats are highly maneuverable, capable of quickly reaching and sustaining high speeds (in excess of 40 knots), and can carry three crewmembers and seven passengers. MSST equipment would also include boat trailers, four Ford F-350 and four F-550 stakebed trucks with trailers, and four 15-passenger vans. When not in use, the Defender Class Boats would be on trailers at their onshore support facility.

Figure 2-3. Photographs of Typical Defender Class Boats

2.1.4 Onshore Homeport Facilities

The San Diego MSST would be permanently located at the MCRD. The USCG would occupy the first (ground) floor of Building 310, which would serve as the administrative support facility for MSST personnel. Building 310 was used as a psychiatric clinic in the past but has been remodeled inside for office space. Establishment of the MSST would involve 8,894 square feet (ft^2) of interior renovations to Building 310, consisting of a 100–200 ft^2 weapons vault, build-out of new office space and a kitchen, installation of new carpet and furniture, painting, updating the heating and cooling systems, and telephone and computer cabling (Figure 2-4).

The USCG would also occupy one-half of Building 239 for boat storage, light maintenance (e.g., oil changes), storage, and shipping/receiving activities. Building 239 is a large warehouse type structure with boat and equipment storage on the west end and camp equipment rental at the east end. Large roll-up doors allow access to the boats that are stored inside this building. There would be no construction or alterations to the outside of Building 239. Renovations to Building 239 would involve approximately 6,340 ft^2 of interior renovations, including construction of a 100–200 ft^2 armory/weapons vault, construction of a small office for shipping/receiving, and installation of two large sliding doors to accommodate the Defender Class Boats and trailers (Figure 2-5).

2.2 No Action Alternative

NEPA implementing regulations require that a No Action Alternative be analyzed to provide a baseline for comparison with the action alternatives. The No Action Alternative identifies and describes the potential environmental impacts if the proponent agency does not implement the Proposed Action or one of the other action alternatives, if applicable. The continuation of the existing conditions without implementation of the Proposed Action is referred to as the No Action Alternative.

For the purposes of this project, the No Action Alternative is defined as not establishing an MSST in San Diego, California. The No Action Alternative serves as the benchmark against which Federal actions can be evaluated. Inclusion of the No Action Alternative is prescribed by CEQ regulations and, therefore, will be carried forward for further analysis in this EA.

Selection of the No Action Alternative would not meet Congressional intent for increased homeland defense. Congress strongly indicated its desire that the USCG establish MSSTs on a priority basis. As stated previously, P.L. 107-117 provided money for the expressed purpose of having the USCG

Figure 2-4. Photographs of Building 310

Figure 2-5. Photographs of Building 239

(in consultation with other agencies) establish four MSSTs before FY 2003. The Senate Appropriations Committee approved a $76 million budget for seven MSSTs in FY 2004 (Senate Report 108-086).

2.3 Comparison of Alternatives

The Proposed Action to stand up an MSST in San Diego, California, has the potential for beneficial impacts on security and safety. First, the MSST would provide added security from terrorist attacks for ships entering or leaving the Port of San Diego, numerous commercial interests, and the general population who work and live in and near the port. Second, the Proposed Action would provide additional protection from potentially significant environmental damage resulting from infrastructure damaged or destroyed in a terrorist attack. While the addition of six boats in the ROI might appear to be a large increase, this is actually a small number when compared to the number and size of vessels that visit the Port of San Diego. Furthermore, it is unlikely that all six boats would be in use at any one time. The boats would normally cruise at 10 to 12 knots, resulting in a small wake that should not negatively impact the surrounding shores. Furthermore, the USCG has existing measures in place, such as the Ocean Steward Program, to guard against adverse vessel impacts on marine protected species (see Appendix D). The purpose of Ocean Steward, the USCG's national strategic plan, is to help the recovery and maintenance of marine protected species to achieve healthy, sustainable populations. The MSST would improve existing USCG security capabilities throughout the ROI. The MSST would not duplicate existing protective measures, but would provide complementary capabilities that would be able to close significant readiness gaps in our nation's strategic ports.

Under the No Action Alternative, the added safety and security provided by the MSST would not be available. While the USCG would continue with their current level of protection, this level has already been determined to be inadequate for the Port of San Diego. The potential environmental damage from a terrorist attack might be adverse.

If the No Action Alternative was selected, as described above, it would not fulfill the USCG's purpose and need to provide additional port security. Under current operations, vessels and manpower are being diverted from other missions to provide additional security for the nation's ports. Under the No Action Alternative, this disruption of other missions would continue. The result would be further demand on manpower and current assets. This scenario of vessels and manpower at maximum capacity could facilitate an attack at one of the "critical" ports. The result might be a potential for significant adverse environmental impacts. Terrorists could strike at military or

commercial facilities in these ports, creating health and safety hazards for the surrounding populace and impacting appropriate emergency responses, employment and trade, and marine life. The impacts could be immediate (loss of life) or long-lasting (disruption of commerce activities) and could impact the long-term economy. Recovery time would depend on the severity and extent of the loss.

Other consequences would result from the USCG being unable to fully perform enforcement missions. For example, the USCG is responsible for drug and alien interdiction and protection of the nation's EEZ. Without adequate vessels and manpower, the USCG would not be able to maintain its high level of effectiveness in stopping illegal aliens and drugs from reaching the nation's shores. Similarly, the USCG would not be able to adequately protect fisheries resources from illegal catches, as directed by its Ocean Guardian Program. Ocean Guardian is a long-range fisheries law enforcement strategy that supports national goals for fisheries resource management and conservation. In addition, adverse impacts on threatened and endangered species could occur if the USCG is unable to maintain its current level of effectiveness in enforcing the ESA and associated regulation in U.S. waters as directed by its Ocean Steward Program.

2.4 Comparison of Environmental Effects of All Alternatives

Table 2-1 summarizes the impacts of the Proposed Action and No Action Alternative.

2.5 Alternatives Considered but Eliminated

The USCG Civil Engineering Unit (CEU) planning team worked with USCG units, other government agencies, and local governments to create a preliminary list of potential MSST locations based on planning factors derived from the stand-up of previous MSSTs. The USCG considered other homeport locations for the San Diego MSST before selecting the MCRD as its preferred alternative.

Other agencies besides the USCG could have been considered for the Proposed Action. However, domestic port security has been a core mission of the USCG for more than 200 years. A Memorandum of Agreement (MOA), signed in October 1995 by the Secretaries of Transportation and Defense, the Chief of Naval Operations, and the Commandant of the USCG, identified those unique national defense capabilities of the USCG as a force provider. In addition, the USCG is the only U.S. maritime agency with regulatory and law enforcement authority that also has military capabilities. The USCG already uses the same tactics for harbor defense and port security that the MSSTs would

be using. This recognition of the USCG's unique capabilities, coupled with the long-time advantage of providing security for U.S. ports, makes the USCG the natural choice to fulfill this mission.

This EA will assess the potential impacts of the USCG establishing and operating an MSST in the San Diego region.

Table 2-1. Impact Matrix Summary

Resource Area	Proposed Action	No Action Alternative
Water Quality	The Proposed Action would have a negligible impact on water quality due to emissions from Defender Class Boat engines during normal operations.	Under the No Action Alternative, ambient water quality conditions would not be impacted. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects on the noise environment. Recovery time would depend on the severity and extent of the impact.
Biological Resources	Implementation of the Proposed Action would have minor adverse impacts on biological resources in the San Diego ROI. Current USCG environmental policies, regulations, and programs designed to protect living marine species (e.g., Ocean Steward in Appendix D and speed guidance designed to avoid collisions with marine mammals) would continue to be followed. Additionally, these boats are designed to be highly maneuverable. Therefore, the stand up and operations of the MSST would not have major adverse impacts on biological protected marine resources or habitats.	Under the No Action Alternative, it would be easier for a terrorist attack to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects on marine mammals. Recovery time would depend on the extent of loss.
Air Quality	Under the Proposed Action, minor adverse impacts on air quality would occur. Calculations of air pollutant emissions from the proposed MSST operations were performed based on transporting boats from the MCRD to the boat ramps at Shelter Island, National City, Chula Vista, and Mission Bay, and operating two boats 24 hours a day, 365 days a year. The net change in nitrogen oxide (NO_x) and volatile organic compounds (VOC) emissions would be well below the *de minimis* threshold requirements and the regional significance requirements of the General Conformity Rule.	Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects on air quality. Recovery time would depend on the severity and extent of the impact.

Table 2-1. Impact Matrix Summary (continued)

Resource Area	Proposed Action	No Action Alternative
Noise	Implementation of the Proposed Action would result in minor adverse impacts. However, due to low speed approach, docking at USCG facilities and the fact that most operations would be conducted at 10 to 12 knots, the potential noise from the addition of six Defender Class Boats would have minor adverse impacts on humans or marine life. Sound levels created by the Defender Class Boats would be well below sound intensities associated with disturbance to marine animals.	Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. Adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for adverse effects on the noise environment.
Public Safety	Beneficial impacts might be expected from the Proposed Action. The Proposed Action would increase the USCG's ability to protect critical domestic ports and the U.S. Maritime Transportation System from warfare and terrorist attacks. While the MSST's operations would closely parallel USCG traditional port security operations, they would also provide complementary, nonredundant capabilities that would be able to close significant readiness gaps in our nation's strategic ports. The MSST would escort a variety of vessels and maintain specific security zones	Under the No Action Alternative, existing conditions would remain as is, and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased demand on vessels and manpower and disruption to other missions would continue. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects on public safety. Terrorists could strike at military or commercial facilities in the ROI creating health and safety hazards for the surrounding populace. The impacts could be immediate or long-lasting. Recovery time would depend on the severity and extent of the impact.

3. Affected Environment

3.1 Introduction

3.1.1 Resources for Analysis

This chapter describes the environmental and socioeconomic conditions most likely to be affected by the Proposed Action and serves as a baseline from which to identify and evaluate potential impacts from implementation of the Proposed Action. In compliance with NEPA, CEQ and USCG regulations and guidelines, the description of the affected environment focuses on those conditions and resource areas that are potentially subject to impacts. These resources include water resources, soils and land use, socioeconomics, environmental justice, cultural and historic resources, hazardous materials and hazardous wastes, biological resources, air quality and climate, noise, and public safety. Some environmental resources and conditions that are often analyzed in an EA have been omitted from this analysis. The following paragraphs identify the omitted resource areas and the basis for such exclusions:

- **Water Resources.** The Proposed Action does not involve any activities that would significantly increase the demand for water resources or affect surface water and groundwater. Interior building renovations have no potential to impact water quality. The Proposed Action could have a minor impact on water quality in the ROI as a result of the emissions of outboard engines. According to the U.S. Environmental Protection Agency's (USEPA) National Coastal Condition Report (NCCR), very little consistent monitoring has been completed on the West Coast to examine estuarine conditions. The NCCR describes the overall condition of West Coast estuaries as fair. In the Status of Habitats and Water Quality in California's Coastal and Marine Environment, a report released by the California Department of Fish and Game in December 2001, San Diego Bay was listed as impaired for copper, sediment toxicity, and benthic effects. As a result, operation of the Defender Class Boats would have minor impacts on water resources. Compared to the high volume of boat traffic and other activities within the Port of San Diego, potential impacts from Defender Class Boat operations would be relatively small. No significant impacts would occur as a result of the implementation and use of the MSST. Accordingly, the USCG has omitted detailed analysis of water resources.
- **Soils and Land Use.** The Proposed Action would not involve any construction activities that would involve physical disturbance of soils. The first project would be minor interior renovations to an existing administrative building, Building 310. The second project would involve minor interior renovations to an existing warehouse, Building 239. Implementation of the Proposed Action would not alter the existing land use at these locations. Accordingly, the USCG has omitted detailed examination of soils and land use.
- **Socioeconomics.** The Proposed Action would not involve any activities that would contribute to significant changes in socioeconomic resources. The majority of the 76 active-duty and the HS2 support billet would be reassigned personnel and, therefore, would already reside in the San Diego region. In 2000, San Diego County had a population of 2.8 million persons. It is unlikely that the reassignment of personnel would significantly impact the

region, due to the relative size of the population affected. Accordingly, the USCG has omitted detailed examination of socioeconomics.

- **Environmental Justice.** No minority populations or low-income populations reside near the MCRD. Implementation of the Proposed Action would not result in adverse impacts in any environmental resource area that would, in turn, be expected to affect minority and low-income populations disproportionately. Therefore, no significant impacts would be expected. Accordingly, the USCG has omitted detailed examination of environmental justice.
- **Cultural and Historic Resources.** The Proposed Action would not involve any activities that would impact cultural resources. Although there are many historic buildings at the MCRD, Buildings 239 and 310 are not eligible according to a letter from the State Historic Preservation Office (SHPO). MSST personnel would be in Building 310, which has previously undergone interior renovations. Vessels, vehicles, and supplies would be in Building 239, which is currently warehouse space. These buildings would undergo minor interior renovations, which would not affect cultural resources at MCRD. Currently, Buildings 239 and 310 are outside of the MCRD historic district. Accordingly, the USCG has omitted detailed examination of cultural and historic resources. The USCG sent a letter to the California SHPO regarding the Proposed Action on September 2, 2004 (see Appendix B).
- **Hazardous Materials and Hazardous Wastes.** The Proposed Action would occur at the MCRD. Routine vessel and vehicle maintenance would be performed in Building 239. The USCG would adhere to the policies and procedures established by the MCRD. A local commercial contractor would be hired to remove and dispose of hazardous waste materials (e.g., used oil and engine coolant), and the MSST armory would use only nonhazardous, orange-based cleaners. The MSST would follow the USCG's procedures as described in the Hazardous Waste Management Manual (COMDTINST M16478.1B), internally known as the "Red Book." This manual is a compilation of standard operating procedures for employees handling hazardous materials and waste, asbestos, polychlorinated biphenyls, fuel tanks, lead, and biohazardous waste (USCG 1992). Accordingly, the USCG has omitted detailed examination of hazardous materials and hazardous wastes.
- **Coastal Zone Management Act.** The Federal *Coastal Zone Management Act of 1972* requires Federal agency activities to be consistent with the state's federally approved Coastal Management Program. In the case of the Proposed Action, interior modifications to Buildings 239 and 310 would not create an erosion hazard, nor result in any impacts for commercial or recreational use of the area. The USCG sent its Federal Consistency Determination letter to the California Coastal Commission on September 2, 2004 (see Appendix B). Since the Proposed Action is consistent with the state's Coastal Management Program, the USCG has omitted further detailed examination.

3.1.2 Region of Influence

The MSST would be permanently homeported at the MCRD San Diego. The MCRD encompasses 505.2 acres of San Diego County in Southern California. This location is strategic to the vital interests of the United States in the Pacific. MCRD is approximately 2 miles northwest of downtown San Diego. The San Diego International Airport is directly to the south and Pacific Highway to the north. MRCD is conveniently near the intersection of Interstate Highways I-5 and I-8.

The history of modern day MCRD began with civil strife in Mexico. This provided an impetus for the Fourth Regiment of Marines to arrive at Camp Howard, known today as North Island, to provide a military show-of-force and protect American interests on the West Coast. In 1914, Mexican unrest spurred further deployments and the Navy sought to establish a West Coast base of operation. San Diego and San Francisco were the only serious contenders for the establishment of such operations. San Diego was eventually chosen due to the geographic advantage of being 14 miles from the U.S./Mexico border, thus being the closest Pacific port to the newly completed Panama Canal. MCRD San Diego experienced growth during World Wars I and II, as well as the Korean and Vietnam Wars, but experienced stagnation during the post-war years. From the late 1970s to 1980s, MCRD entered another growth phase due to a closure study that recommended retention of MCRD. With the end of the Cold War in 1990, a reduction in military spending resulted in a series of Base Realignment and Closure (BRAC) acts. BRAC closed two of the three Navy recruit-training facilities. However, MCRD and its counterpart facility at Parris Island, South Carolina, were deemed essential to operations and remain at full operational force (MCRD 2004).

MCRD San Diego, responsible for training male recruits, is one of two recruit depots in the U.S. MCRD has a permanent population of 265 officers, 1,605 enlisted, and 1,113 civilian personnel. MCRD San Diego hosts several tenant organizations, most of which support the MCRD. Others, including the USCG Tactical Law Enforcement Team, the USCG MSST, and the Marine Corps Absentee Collection Unit, are on the MCRD because of the availability of facilities (MCRD 2004).

The Defender Class Boats would be launched primarily from a boat ramp at the MCRD Marina (Figures 2-1 and 2-2), but might also be launched from public boat ramps at Shelter Island, National City, Chula Vista, or Mission Bay. The MSST would spend the majority of its operating time patrolling the Port of San Diego; however, it can be deployed temporarily in emergencies to other ports as needed. The MSST would primarily be responsible for patrolling the established ship channels and escorting tankers and cruise ships.

3.1.3 Environmental Regulations, Laws, and Executive Orders

A table containing examples of regulations, laws, and EOs that might reasonably be expected to apply to the Proposed Action is included in Appendix C. It is not intended to be a complete description of the entire legal framework under which the USCG conducts its missions.

3.2 Biological Resources

3.2.1 Definition of the Resource

Biological resources include native or naturalized plants and animals, and the habitats (e.g., wetlands, forests, and grasslands) in which they exist. Sensitive and protected biological resources include plant and animal species listed as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries), or a state regulatory agency, or otherwise protected under Federal or state laws. Determining which species or habitats occur in an area affected by a proposed action can be accomplished through literature reviews and coordination with appropriate Federal and state regulatory agency representatives, resource managers, and other knowledgeable experts.

The USCG has a number of long-standing initiatives and programs relating to Living Marine Resource Protection, a primary mission of the USCG:

- **National Marine Sanctuary Law Enforcement Program.** Among other activities, this program provides routine surveillance of marine sanctuaries concurrently with other USCG operations and provides specific, targeted, or dedicated law enforcement, as appropriate.
- **Ocean Guardian.** This long-range fisheries law enforcement strategy supports national goals for fisheries resource management and conservation (see Appendix D).
- **Ocean Steward.** This is the USCG's national strategy to help the recovery and maintenance of healthy populations of marine protected species (see Appendix D).
- **Sea Partners.** This environmental and outreach program is designed to develop community awareness of maritime pollution issues and to improve compliance with marine environmental protection laws and regulations (USCG 2002d).
- **COMDTINSTs.** This is the USCG's implementation and guidance document for policy and procedures.
- **Conservation Program.** This program promotes USCG involvement with other Federal and state agencies and public and nongovernmental organizations to conserve and protect living marine resources (USCG 1996).

Protected and Sensitive Habitats

Protected habitats are biologically sensitive marine habitats that are managed by Federal, state, or local agencies. Protected habitats in the San Diego region include Federal Fishery Management Zones (FFMZ), National Wildlife Refuges (NWRs), National Estuarine Research Reserves (NERRs), National Parks (NPs), State Parks (SPs), and critical habitat. These habitats are offered varying degrees of protection from agencies such as NOAA Ocean Services, NOAA Fisheries, the

Department of the Interior, the USFWS, the National Park Service (NPS), the USCG, state agencies and, in some cases, local jurisdictions.

Wetlands, Floodplains, and Seagrasses

Biological resources also include wetlands. Wetlands are an important natural system and habitat because of the diverse biologic and hydrologic functions they perform. These functions include water quality improvement, groundwater recharge and discharge, pollution mitigation, nutrient cycling, wildlife habitat provision, unique flora and fauna niche provision, storm water attenuation and storage, sediment detention, and erosion protection. Wetlands are protected as a subset of the "waters of the United States" under the Clean Water Act (CWA). The term "waters of the United States" has a broad meaning under the CWA and incorporates deepwater aquatic habitats and special aquatic habitats (including wetlands). The U.S. Army Corps of Engineers (USACE) defines wetlands as "those areas that are inundated or saturated with ground or surface water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (33 CFR 328).

Section 404 of the CWA authorizes the Secretary of the Army, acting through the Chief of Engineers, to issue permits for the discharge of dredged or fill materials into the waters of the United States, including wetlands. In addition, Section 404 of the CWA also grants states with sufficient resources the right to assume these responsibilities. Section 401 of the CWA authorizes states to use their water quality standards to protect wetlands. The permit provided by the state under Section 401 is generally referred to as a 401 Water Quality Certification. In California, 401 certification actions are the responsibility of the State and Regional Water Quality Control Boards.

EO 11988, *Floodplain Management*, requires Federal agencies to determine whether a proposed action would occur within a floodplain. The determination of whether a proposed action occurs within a floodplain typically involves consultation of appropriate Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs), which contain enough general information to determine the relationship of the project area to nearby floodplains. EO 11988 directs Federal agencies to avoid floodplains unless the agency determines that there is no practical alternative to undertaking the action in a floodplain. Where the only practicable alternative is to site in a floodplain, a specific step-by-step process must be followed to comply with EO 11988. This "8-step" process is detailed in the FEMA document *Further Advice on EO 11988 Floodplain Management*. The eight steps in Floodplain compliance are

1. Determine whether the action will occur in or stimulate development in, a floodplain.
2. Public review/input of the proposed action.
3. Identify and evaluate practicable alternatives to locating in the floodplain.
4. Identify the impacts of the proposed action (when it occurs in a floodplain).
5. Minimize threats to life, property, and natural and beneficial floodplain values, and restore and preserve natural and beneficial floodplain values.
6. Reevaluate alternatives in light of any new information that might have become available.
7. Issue findings and a public explanation.
8. Implement the action.

Steps 1 through 6 have been undertaken as part of this EA. Step 7 will be undertaken simultaneously with public comments on this EA.

Marine Mammals and Sea Turtles

Protection of marine protected species, such as mammals, sea turtles, or other threatened or endangered marine species, is an important USCG mission. Biotic and environmental factors, as well as human impacts, influence the distribution of marine mammals and sea turtles. Environmental factors include chemical, climate, or physical (those related to the characteristics of a location) factors. Biotic factors include the distribution and abundance of prey, competition for prey, reproduction, natural mortality, catastrophic events (e.g., die-offs), and predation. Human impacts include noise, hunting pressure, pollution, oil spills, habitat loss and degradation, shipping traffic, recreational and commercial fishing, oil and gas development and production, and seismic exploration. It is the interrelationships of environmental and biotic factors and human impacts that can affect the location and temporary distribution of prey species. This, in turn, influences diversity, abundance, and distribution of marine mammals and sea turtles.

The USCG plays an important role in protecting marine mammals and sea turtles because it enforces all U.S. laws within the EEZ. Several of these laws protect marine species, including the ESA, the Marine Mammal Protection Act (MMPA), a number of maritime EOs, and various other Federal and international laws. The USCG's Protected Living Marine Resources Program (COMDTINST 16475.7) includes a number of USCG policies, directions, and procedures that establish specific rules to ensure that impacts on marine mammals and sea turtles are avoided whenever possible. The USCG's Ocean Steward and Ocean Guardian initiatives, Atlantic Protected Living Marine Resources Initiative (APLMRI), and guidance regarding vessel speed also support these goals (USCG 2002a). Additionally, the Ocean Steward initiative protects marine mammals from being harassed by nearby

or repetitively approaching vessels. Information about the Ocean Steward, Ocean Guardian, and Protected Living Marine Resources Programs is presented in Appendix D.

The ESA of 1973 (16 United States Code [U.S.C.] 1531-1534) establishes protection and conservation of threatened and endangered species and the ecosystems upon which they depend. The ESA is administered by the USFWS and NOAA Fisheries. Under the ESA, an "endangered species" is defined as any species in danger of extinction throughout all or a significant portion of its range. A "threatened species" is defined as any species likely to become an endangered species in the foreseeable future. Section 7 of the ESA requires that all Federal agencies consult with the USFWS or NOAA Fisheries, as applicable, before initiating any action that could affect a listed species. "Critical habitat" includes geographic areas "on which are found those physical or biological features essential to the conservation of the species and which require special management consideration or protection." Section 7 of the ESA states that any project authorized, funded, or conducted by any Federal agency should not "… jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined to be critical."

Under the MMPA of 1972 (16 U.S.C. 1361 *et seq*.), the Secretary of Commerce is responsible for the protection of all cetaceans (whales, porpoises, and dolphins) and pinnipeds (seals and sea lions) except walruses, and has delegated authority for implementing the MMPA to NOAA Fisheries. The Secretary of the Interior is responsible for walruses, polar bears, sea otters, manatees, and dugongs and has delegated the responsibility of conservation and protection of these marine mammals to the USFWS. These responsibilities include providing overview and advice to regulatory agencies on all Federal actions that might affect these species.

The MMPA prohibits the "take" of marine mammals, with certain exceptions, in waters under U.S. jurisdiction and by U.S. citizens on the high seas. Under Section 3 of the MMPA, "take" of marine mammals is defined as "harass, hunt, capture, or kill or attempt to harass, hunt, capture, or kill any marine mammal" and "harassment" is defined as any act of pursuit, torment, or annoyance that has the potential to injure marine mammal stock in the wild; or has the potential to disturb a marine mammal or marine mammal stock in the wild by disrupting behavioral patterns, including migration, breathing, nursing, breeding, feeding, and sheltering. In cases where U.S. citizens are engaged in activities, other than fishing, that result in "unavoidable" incidental take of marine mammals, the Secretary of Commerce can issue a "small take authorization." The authorization can be issued, after notice and opportunity for public comment, if the Secretary of Commerce finds negligible impacts.

Fish

Under their Living Marine Resource Protection mission, the USCG undertakes activities, such as enforcing domestic fisheries laws, and ensuring the development of practical enforcement plans, to protect, conserve, and manage these resources. Examples of laws pertaining to fish and fisheries management that the USCG enforces are

- Atlantic Coastal Fisheries Cooperative Management Act (16 U.S.C. 2431 et seq.)
- Atlantic Salmon Convention Act (16 U.S.C. 971 et seq.)
- Lacey Act Amendments of 1981 (16 U.S.C. 1531 et seq.)
- Magnuson-Stevens Fisheries Conservation and Management Act (MSA) (16 U.S.C. 1801, et seq.)
- Northwest Atlantic Fisheries Compliance Act of 1995 (16 U.S.C. 5001 et seq.)
- Tuna Conventions Act (16 U.S.C. 973 et seq.)

Additionally, the Ocean Guardian initiative includes the Fisheries Enforcement Strategic Plan to support national goals for fisheries resource management and conservation.

Coastal and Other Birds

In enforcing the ESA, the USCG also protects threatened and endangered bird species. The USCG must also comply with the Migratory Bird Treaty Act and EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*.

3.2.2 Affected Environment

The ROI for the Proposed Action and the No Action Alternative includes the Port of San Diego and the coastal waters from the U.S./Mexican border north to Dana Point.

Protected and Sensitive Habitats

Federally protected habitats in the coastal area of the ROI include the San Diego NWR Complex, which comprises San Diego NWR, Tijuana Slough NWR, San Diego Bay Sweetwater Marsh, and San Diego Bay South Bay; Tijuana River NERR; and Cabrillo National Monument. A description of these protected habitats can be found in Appendix F.

Critical habitat is designated under the ESA as "a specific geographic area that is essential for the conservation of a threatened or endangered species and that may require special management or protection." Critical habitat can include an area that is not currently occupied by a species, but is

needed for the recovery of that species. In 2000, in response to a court order, the USFWS announced the designation of 4,025 acres of land in Orange and San Diego counties as critical habitat for the endangered San Diego fairy shrimp, a small vernal pool crustacean unique to southern California (USFWS 2000). Lands designated as critical habitat include 62 acres within the Fairview Regional Park in Orange County, and 3,042 acres within the City of San Marcos and the community of Ramona. Other critical habitat lands are found in the cities of Carlsbad, Chula Vista, and San Diego, and on lands managed by the DHS. In addition to the critical habitat for fairy shrimp, the USFWS proposed designation of critical habitat for the threatened coastal California gnatcatcher (*Polioptila californica californica*) pursuant to the ESA. The proposed critical habitat unit boundaries encompass approximately 799,916 acres (323,726 hectares) of gnatcatcher habitat in Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties, California (USN 2000).

Wetlands, Floodplains, and Seagrasses

Nontidal freshwater wetlands and riparian areas are supported at the entry points of freshwater tributaries into San Diego Bay (USN 2000). However, due to extensive shoreline modifications (piers and quay walls) and dredging to support safe navigation of deep-draft vessels, it is anticipated that protected wetlands do not exist within the area of the homeport location.

The appropriate FEMA FIRM indicates that the MCRD is located in "Zone D," where no analysis of flood hazards has been conducted (FEMA 1997). While portions of the MCRD might be located within the 100-year floodplain, the potential for flooding at MCRD is very low. The San Diego River has been diverted from its original channel by the USACE and no flooding has occurred since that time. It is unlikely that an unusually high or heavy rain would produce more than localized flooding in poor drainage areas.

Seagrass ecosystems are among the most productive benthic habitats in estuarine and nearshore waters. Seagrass meadows provide food and important spawning, foraging, and refuge habitat for numerous species of recreationally and commercially important fish. They also allow for the attachment of epiphytes and benthic organisms, and they support threatened and endangered species such as sea turtles (Handley 1995). The seagrass (*Zostera marina*), or eelgrass, is the dominant seagrass in San Diego Bay. It is protected under the MSA (P.L. 94-265) as "essential fish habitat" and under the Clean Water Act [40 CFR Part 230, Section 404 (b)(1)] as a "special aquatic site." Eelgrass is a marine angiosperm, capable of both sexual and asexual reproduction. The entire flowering process takes between 30 to 60 days. Vegetative reproduction occurs all year. They can grow on a variety of substrates varying from firm sand to fine soft clays and silts. They are found in

waters ranging in temperatures from less than 0 degrees Celsius (ºC) to greater than 30 ºC. Eelgrass grows best in water that has a moderate to high water current, but lacks a strong wave action.

In San Diego Bay, eelgrass provides refuge for numerous species of algae, invertebrates, and fishes, as well as nursery habitat for juvenile fishes. Eelgrass is found at low depths of 0 to 24 feet in the north and central bay and 0 to 13 feet in the south and south-central bay. Around 88 percent of the eelgrass present in San Diego Bay is in the south and south-central bay sections and approximately 12 percent is in the north and north-central sections (USN 2002). The Boat Channel, terminating at the western edge of MCRD, contains a significant amount of eelgrass (MCRD 2004).

Marine Mammals

Three species of marine mammals are infrequent-to-occasional visitors to San Diego Bay: the California sea lion (*Zalophus californianus californianus*), the harbor seal (*Phoca vitulina*), and the Pacific bottlenose dolphin (*Tursiops truncatus*) (USN 2002).

California Sea lions (*Zalophus californianus californianus*). California sea lions, distributed from British Columbia to Baja Mexico, are one of the more abundant and common pinnipeds found along California coastal embayments. Current population estimates for the U.S. stock of California sea lions (*Zalophus californianus californianus*) range from 109,854 to 214,000 (USN 2002). These estimates include all California sea lions counted during the 1999 census at the four rookeries in southern California, and at the haul-out sites between Point Conception and the Oregon/California border. Sea lion populations within San Diego Bay have not been directly surveyed, although an estimate of 90,000 animals has been made for the overall Southern California region (USN 2002).

California sea lion population growth is estimated to be about 6.2 percent per year. Human causes of mortality are relatively low (1,208 fishery-related mortalities plus 144 from other sources) compared to a potential biological removal (PBR) of 6,591 (USN 2002). Based on these factors, the U.S. stock of California sea lions is not listed as “endangered” or “threatened” under the ESA, or considered to be “depleted” or “strategic” under the MMPA (USN 2002).

Within San Diego Bay, higher sea lion abundance is typically observed within the northern portion of the Bay where sea lions frequently haul-out on piers, docks, and navigation aids. Breeding season for the California sea lion is from May through June at isolated sites on the Southern California Channel Islands and along the coast of Baja California. There are no breeding sites within San Diego Bay. Within the Bay, likely prey species include spiny dogfish, jack mackerel, Pacific herring, Pacific sardine, northern anchovy, octopus, and leopard shark (USN 2002).

California sea lion ears are adapted for both in-air and underwater hearing. The majority of underwater sounds produced are clicks and barks associated with territorial and dominance displays. The underwater hearing frequency range for California sea lions has been reported between 0.25 kiloHertz (kHz) to 40 kHz with the dominant range between 0.5 and 10 kHz (USN 2002). Like other mammals, age-related loss of hearing sensitivity in sea lions has also been noted. In a series of experiments conducted with older (22–25 years) and younger sea lions (13–16 years), Schusterman et al. (2002) reported a 10 decibels (dB) to 50 dB reduction in hearing threshold in the older sea lion group (USN 2002).

Harbor seal (*Phoca vitulina*). Harbor seals are widely distributed in both the North Atlantic and Pacific oceans. The Eastern North Pacific subspecies (*Phoca vitulina richardsi*) is a near-shore and estuarine non-migratory species distributed from the Bering Sea to Baja, California (USN 2002). NOAA Fisheries estimates suggest that the minimum population of harbor seals is 27,962 (USN 2002). Breeding season in the Southern California region is between May and July at remote offshore breeding sites. Along the California coast there are approximately 400 to 500 mainland and offshore haul-out locations (USN 2002). Harbor seals are normally sensitive to human interaction, but habituation to both human activity and anthropogenic noise has been demonstrated (Richardson et al., 1995).

Harbor seals are not listed as "endangered" or "threatened" under the ESA, or as "depleted" or "strategic" under the MMPA. The population appears to be growing, fishing mortality is declining, and there are no known habitat issues of particular concern for this stock (USN 2002). Harbor seals are occasional visitors to northern San Diego Bay (USN 2002), where they feed on shallow water schooling benthic and epibenthic fish species. San Diego Bay prey species can include specklefin midshipman, plainfin midshipman, jack mackerel, shiner surfperch, yellowfin goby, English sole, octopi, and crabs (USN 2002). Harbor seals are rarely sighted in the Central Bay.

Møhl reported underwater sound detection in a harbor seal as high as 180 kHz, although maximum sensitivity was between 8 and 64 kHz (USN 2002). These responses at higher frequencies (90–180 kHz) have not been replicated by other researchers who have reported rapid degradation of hearing discrimination at frequencies higher than 30 to 60 kHz (USN 2002). Terhune measured harbor seal sensitivities to short-duration sounds (< 500 microseconds) and concluded that high frequency thresholds increased when a sound pulse contained fewer than 400 cycles (USN 2002). Like California sea lions, underwater vocalizations by harbor seals are probably associated with territorial, mating, dominance, and other socializing behaviors (USN 2002).

Bottlenose dolphin (*Tursiops truncatus*). Bottlenose dolphins have a worldwide tropical and temperate distribution (USN 2002). The California coastal stock is typically found within approximately 1 kilometer (0.6 mi) of the coast from Point Conception to Ensenada, Mexico, although distribution is strongly correlated to prevailing oceanographic conditions (USN 2002).

NMFS estimates that the minimum population of the California bottlenose dolphins is 154 animals (USN 2002). They are not listed as "threatened" or "endangered" under the ESA, or as "depleted" or "strategic" under the MMPA.

Bottlenose dolphins have been observed in both the Southern California surf zone and the northern portion of San Diego Bay. Bottlenose dolphins forage outside of San Diego Bay on jack mackerel, Cortez grunt, striped mullet, black croaker, white seabass, white croaker, spotted croaker, yellowfin croaker, California corvina, queenfish, Pacific mackerel, Pacific bonito, and sierra (USN 2002).

Dolphins use echolocation signals to hunt for prey and avoid obstacles. Underwater hearing ranges reported for bottlenose dolphins range from 1 to 150 kHz, with peak sensitivities between 40 and 100 kHz (USN 2002).

Green sea turtle (*Chelonia mydas*). The green sea turtle is a highly migratory species listed as "threatened" throughout its entire Pacific range (USN 2002). San Diego Bay is one of the northern-most habitats for the Eastern Pacific stock of the green sea turtle (*Chelonia mydas agassizii*), with a small population of about 30 mature and immature turtles residing in the southern portion of the Bay (USN 2002).

Stinson used telemetry tags to track green sea turtles from 1976 to 1983 within San Diego Bay (USN 2002). During this study, turtles appeared seasonally from late October until early May, and exclusively occupied the south Bay in the vicinity of a warm-water plume associated with the San Diego Gas and Electric (now Duke Energy) power plant effluent. Individual turtles were always located within 2.5 miles of the effluent channel, and did not venture into either the Central or North Bay. No turtles were sighted or tracked within the Bay during the summer months. The turtles would travel along the deeper contours of the South Bay singly or in loose groups of 2 to 7 animals while foraging.

Major nesting grounds for the Eastern Pacific stock of the green sea turtles are located along the Mexican coast and the Galapagos Islands. There are no known nesting beaches within the United States (USN 2002). Periodic recruitment from these nesting grounds might be responsible for

maintaining the San Diego Bay population, and ongoing tagging studies are being conducted to confirm these migrations (USN 2002). Green sea turtles are primarily herbivorous, eating sea grasses and algae within San Diego Bay (USN 2002).

Investigations into green sea turtles' hearing are limited. Ridgway et al. reported maximum sensitivities from 300 to 500 Hertz (Hz) (USN 2002). New research on a captive green sea turtle at the New England Aquarium, funded by the Office of Naval Research, reported auditory thresholds as 107 to 119 dB re1 microPascal (µPa) at 200 Hz and 121 to 131 dB re1 µPa at 400 Hz (USN 2002).

Fish

Fish fauna have been studied extensively in many parts of San Diego Bay. Studies by Allen (1998, 1999), SAIC (1994), and the USN (1995) showed that the fish assemblages in San Diego Bay are typical of southern California embayments. The most common pelagic fish species include the topsmelt (*Atherinops affinis*), jacksmelt (*Atherinopsis californiensis*), northern anchovy (*Engraulis mordax*), chub mackerel (*Scomber japonicus*), and Pacific sardine (*Sardinopsis sagax*). Demersal fish species common in nonvegetated areas of San Diego Bay (similar to parts of the project site) include round stingray (*Urolophus halleri*), spotted sand bass (*Paralabrax maculatofasciatus*), barred sand bass (*P. nebulifer*), yellowfin diamond turbot (*Hypsopsetta guttulata*), and California halibut (*Paralichthys californicus*).

The Pacific coast Groundfish Fishery Management Plan developed by the Pacific Fisheries Management Council manages 83 groundfish species that occur throughout the EEZ. These species occupy diverse habitats at all stages in their life histories. EFH for Pacific coast groundfish is defined as the aquatic habitat necessary to allow groundfish production to support long-term sustainable groundfish fisheries. The various EFH descriptions for the 83 species and their life stages are grouped into seven units called "composite" EFHs (PFMC 1998a). The "Estuarine" composite EFH includes all waters, substrates and associated biological communities within the bays and estuaries of coastal Washington, Oregon, and California, from either the mean high high water line or the extent of upriver saltwater intrusion, seaward to the U.S. EEZ. This includes all of San Diego Bay.

The Coastal Pelagic Species (CPS) fishery includes four finfish (Pacific sardine, Pacific (chub) mackerel, northern anchovy, and jack mackerel) and the invertebrate, market squid (PFMC 1998b) (see Table 3-1). CPS finfish are pelagic (i.e., they inhabit the water column near the surface and are not associated with benthic substrate), because they generally occur above the thermocline in the

Table 3-1. Species that have EFH within the ROI

Common Name	Scientific Name	Comment
Coastal Pelagics FMP		
Northern anchovy	*Engraulis mordax*	Most common species in harbor; adult and larvae present
Pacific sardine	*Sardinops sagax*	Abundant species in harbor; predominantly adult
Pacific mackerel	*Scomber japonicus*	One of top 10 species in deeper portions of the harbor; adult
Jack mackerel	*Trachurus symmetricus*	One of top ten species in deeper portions of the harbor; adult
Pacific Groundfish FMP		
English sole	*Parophrys vetulus*	Rare; adult; 1 of 30,733 fish caught in trawl
Pacific sanddab	*Citharichthys sordidus*	Rare; adult; 1 of 30,733 fish caught in trawl
Leopard shark	*Triakis semifasciata*	Uncommon; adult; 1 of 20,184 fish caught in beach seines
Bocaccio	*Sebastes paucispinis*	Uncommon; juvenile in kelp around breakwater
California scorpionfish	*Scorpaena gutatta*	Common; adult found in rock dikes and breakwater, soft bottom at night
Olive rockfish	*Sebastes serranoides*	Common; juveniles in kelp around breakwater
Cabezon	*Scorpaenichthys marmoratus*	Rare; adult

Source: MEC 1988, MEC 1999

upper mixed layer. For the purposes of EFH, the four CPS finfish are treated as a single species complex because they have similar life histories and habitat requirements. Market squid are also treated in this same complex because they are similarly fished above spawning aggregations.

The east-west geographic boundary of EFH for each individual CPS finfish and market squid is defined to be all marine and estuarine waters from the shoreline along the coasts of California, Oregon, and Washington offshore to the limits of the EEZ, and above the thermocline where sea surface temperatures range between 10 ºC and 26 ºC. The southern boundary of the geographic range of all CPS finfish is consistently south of the U.S./Mexico border, indicating a consistency in sea surface temperatures at below 26 ºC, the upper thermal tolerance of CPS finfish. Therefore, the southern extent of EFH for CPS finfish is the U.S./Mexico maritime boundary. The northern boundary of the range of CPS finfish is more dynamic and variable due to the seasonal cooling of the sea surface temperature. The northern EFH boundary is, therefore, the position of the 10 ºC isotherm which varies both seasonally and annually.

CPS can occur in shallow embayments and brackish water, but do not depend on these habitats to any significant degree. Coastal areas are essential breeding, nursery, and feeding areas for many marine fish and shellfish. Pursuant to the MSA, Federal agencies must consult with fishery managers concerning actions (including the issuance of permits for private activities) that might adversely impact EFH.

Invertebrates are important components of marine ecosystems as they represent a food source for many fish and birds. Invertebrates consist of infauna (organisms living in the sediments) and epifauna (organisms living on the sediments). The most common epifauna are mollusks (clams, mussels, and snails), cnidarians (hydroids and sea anemones), arthropods (barnacles, shrimp, and crabs), and porifera (sponges). The introduced Japanese mussel (*Musculista senhousia*) is commonly found on muddy bottom habitats throughout San Diego Bay, occurring in similar densities at the proposed site as in other parts of the Bay. However, these mussels typically are absent from areas dominated by eelgrass.

Coastal and Other Birds

Two federally and state-listed endangered bird species, the California brown pelican (*Pelecanus occidentalis californicus*) and California least tern (*Sterna antillarum browni*), occur along the shoreline and nearshore waters of the ROI (USN 2002) (see Table 3-2). The MCRD Boat Channel provides important foraging and nesting habitat for numerous shorebirds, including California least terns during the breeding season (early-April to mid-September). The California brown pelican also uses the area for feeding and roosting. Other species listed as threatened or as "species of concern" that are known to rest and/or forage, but do not nest around the northeastern shoreline of North Island, include the Western snowy plover (*Charadrius alexandrinus nivosus*), gull-billed tern (*Sterna nilotica*), and the elegant tern (*Sterna elegans*).

Table 3-2. Bird Species in the ROI

Common Name	Scientific Name
California brown pelican	*Pelecanus occidentalis californicus*
California least tern	*Sterna antillarum browni*
Western snowy plover	*Charadrius alexandrinus nivosus*
Gull-billed tern	*Sterna nilotica*
Elegant tern	*Sterna elegans*

California Least Tern (*Sterna antillarum browni*). The California least tern has been federally and state-listed as an endangered species since 1970. California least terns are inshore foragers and surface-feeding fish eaters that primarily forage in the open waters of the ocean and Bay. Eelgrass beds are also used for foraging because they are habitat for several prey species, including northern anchovy, topsmelt, and jacksmelt. California least terns do not demonstrate any preference for feeding in eelgrass areas. California least tern nesting areas are sparsely vegetated open sandy beaches or gravelly shores, and nearby fishing waters. California least terns typically nest from from mid-April through September.

California Brown Pelican (*Pelecanus occidentalis californicus*). The migratory California brown pelican is a Federal and state-listed endangered species. In San Diego Bay, pelicans roost and stage fall migration. Up to 85 percent of the breeding pairs nest on the Coronado Islands. Brown pelicans mainly roost on dikes and other artificial structures, seldom roosting on natural structures. Around San Diego Bay there are many piers, buildings, and other artificial structures utilized by pelicans for roosting.

Western Snowy Plover (*Charadrius alexandrinus nivosus*). The western snowy plover is a federally listed threatened bird species that nests in colonies on sandy beaches along the west coast of the United States. Western snowy plovers occur on the beaches in the San Diego Bay area, and on the salt-work levees in the southern end of San Diego Bay. The species forages along the water's edge on sandy beaches and on mudflats. There is no foraging habitat available for the western snowy plover in the installation area.

3.3 Air Quality and Climate

3.3.1 Definition of the Resource

The air quality in a given region is measured by the concentration of various pollutants in the atmosphere. The Clean Air Act (CAA) National Ambient Air Quality Standards (NAAQS) have been established by USEPA for six criteria pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns (PM_{10}), and lead (Pb). The measurements of these "criteria pollutants" are expressed in units of parts per million (ppm) or in units of micrograms per cubic meter ($\mu g/m^3$). The CAA directed USEPA to develop, implement, and enforce strong environmental regulations that would ensure cleaner and healthier ambient air quality. To protect public health and welfare, USEPA developed numerical concentration-based primary and secondary standards for these criteria pollutants. NAAQS represent maximum levels of background

pollution that are considered safe, with an adequate margin of safety to protect public health and welfare. O_3 is not emitted directly from stationary, mobile, or area pollution sources. Rather, it is a product of photochemically reactive compounds such as nitrogen oxides (NO_x) and volatile organic compounds (VOC). These compounds are inventoried and quantified as precursors of O_3. Air quality in a region is a result of not only the types and quantities of atmospheric pollutants and pollutant sources in an area, but also surface topography, the size of the air basin, and the prevailing meteorological conditions.

Federal regulations (40 CFR 81) have defined Air Quality Control Regions (AQCRs), or airsheds, for the entire United States. AQCRs are based on population and topographic criteria for groups of counties within a state, or counties from multiple states that share a common geographical or pollutant concentration characteristic.

The CAA Section 176 I (1) prohibits Federal agencies from undertaking projects that do not conform to a USEPA-approved State Implementation Plan (SIP) in nonattainment areas. In 1993, the USEPA developed the General Conformity Rule, which specifies how Federal agencies must determine CAA conformity for sources of nonattainment pollutants in designated nonattainment and maintenance areas. A maintenance area is one that has met Federal air quality standards, thus removing it from nonattainment status. This rule and all subsequent amendments can be found in 40 CFR 51 Subpart W and 40 CFR 93 Subpart B. Through the Conformity Determination process specified in the final rule, any Federal agency must analyze increases in pollutant emissions directly or indirectly attributable to a proposed action. In addition, they might need to complete a formal evaluation that might include modeling for NAAQS impacts, obtaining a commitment from the state regulatory agency to modify the SIP to account for emissions from a proposed action, and/or providing for mitigation for any significant increases in nonattainment pollutants. SIPs are the regulations and other materials for meeting clean air standards and associated CAA requirements. The Proposed Action occurs in an area classified as Subpart 1 nonattainment for O_3. This designation means the area was considered in attainment for the old 1-hour O_3 standard, but does not meet the new, lower, 8-hour standard. The area is in attainment for all other criteria pollutants, but is classified as a maintenance area for CO, due to a previous classification of moderate nonattainment. Because the Proposed Action occurs in an area classified as nonattainment for O_3 and maintenance for CO, the General Conformity Rule applies and a conformity analysis is required.

3.3.2 Affected Environment

Air Quality

The California EPA has primary jurisdiction over air quality in the State of California. The Proposed Action is in the San Diego Intrastate AQCR. The air quality in this region is designated nonattainment for O_3 and in attainment for all other criteria pollutants. Table 3-3 presents the primary and secondary NAAQS.

Table 3-3. National Ambient Air Quality Standards

Pollutant	Standard Value		Standard Type
Carbon Monoxide (CO)			
8-hour Average	9 ppm	(10 mg/m^3) [a]	Primary and Secondary
1-hour Average	35 ppm	(40 mg/m^3)	Primary
Nitrogen Dioxide (NO_2)			
Annual Arithmetic Mean	0.053 ppm	(100 µg/m^3) [a]	Primary and Secondary
Ozone (O_3)			
1-hour Averagee	0.12 ppm	(235 µg/m^3)	Primary and Secondary
8-hour Average	0.08 ppm	(157 µg/m^3)	Primary and Secondary
Lead (Pb)			
Quarterly Average		1.5 µg/m^3	Primary and Secondary
Particulate ≤ 10 microns (PM_{10})			
Annual Arithmetic Mean		50 µg/m^3	Primary and Secondary
24-hour Average		150 µg/m^3	Primary and Secondary
Sulfur Dioxide (SO_2)			
Annual Arithmetic Mean	0.03 ppm	(80 µg/m^3)	Primary
24-hour Average	0.14 ppm	(365 µg/m^3)	Primary
3-hour Average	0.50 ppm	(1300 µg/m^3)	Secondary

Note: [a] Parenthetical value is an approximately equivalent concentration

Climate

The San Diego MSST would be in a Mediterranean climate with cool nights and moderate days year-round. The Pacific Ocean exerts the greatest climatic influence. Mornings are often characterized by fog and low stratus clouds that usually burn off by mid-morning or early afternoon. Summers are extremely dry; the majority of precipitation (10 inches per year) falls in the 5 months from November through March. Occasionally, the San Gabriel Mountains play a role in the local climate, especially in the fall when hot, dry winds blow down slope from the east. The San Diego Intrastate AQCR is in

a coastal climate that experiences relatively cool summers and mild winters. The average yearly high temperature is 69.9 degrees Fahrenheit (°F) and the average yearly low is 56.4 °F. Table 3-4 presents the monthly temperature and precipitation data for San Diego.

Table 3-4. Local Climate Summary for San Diego

Month	Mean Temperature (°F)	Mean Precipitation (Inches)
January	56.3	2.03
February	57.4	1.96
March	58.8	1.69
April	61.0	0.79
May	63.3	0.21
June	65.8	0.06
July	69.6	0.02
August	71.0	0.06
September	69.7	0.18
October	66.1	0.45
November	61.4	0.96
December	57.3	1.70

Source: Western Regional Climate Center

3.4 Noise

3.4.1 Definition of the Resource

Webster's dictionary defines noise as "sound or a sound that is loud, disagreeable, or unwanted." However, the definition of noise is highly subjective. To some people, the roar of an engine is satisfying or thrilling; to others, it is an annoyance. Loud music might be enjoyable, depending on the listener and the circumstances. While no absolute standards define the threshold of "significant adverse impact," there are common precepts about what constitutes adverse noise in certain settings, based on empirical studies. Noise is "adverse" in the degree to which it interferes with activities (such as speech, sleep, and listening to the radio and television) and the degree to which human health might be impaired. Noise can also cause "adverse impacts" on marine mammals, depending on the type of noise and duration. Noise can result in stressful situations that disrupt sleep, reproduction, feeding habits, and communication in marine mammals.

This section defines noise standards and methodology, the properties of noise in air and water, and describes the existing noise in the ROI (ambient noise level). To understand the impact of noise on

humans and marine animals it is necessary to understand the properties of noise in air and water and the existing ambient noise levels in the ROI.

A primary component of noise is wave amplitude or loudness, which is typically measured in decibels. A dB is the ratio between a measured pressure (with sound) and a reference pressure (without sound). It is a logarithmic unit that accounts for large variations in amplitude; therefore, relatively small changes in dB ratings correspond to significant changes in sound. The ambient sound level of a region is defined by the total noise generated, including sounds from both natural and artificial sources. The magnitude and frequency of environmental noise might vary considerably over the course of the day and throughout the week, due in part to changing weather conditions.

Airborne Noise

To evaluate the total community noise environment (above-water noise), two measurements are used by some Federal agencies to relate the time-varying quality of environmental noise to its known effect on people: the 24-hour equivalent sound level (Leq(24)) and the day-night average sound level (DNL). The Leq(24) is the level of steady sound with the same total (equivalent) energy as the time-varying sound of interest, averaged over a 24-hour period. DNL is the average acoustical energy during a 24-hour period with a 10-dB penalty added to nighttime levels (i.e., hours between 10 p.m. and 7 a.m.) to account for people's greater sensitivity to sound during nighttime hours. When measuring sound to determine its effects on the human population, A-weighted sound levels (dBA) are typically used to account for the response of the human ear. A-weighted sound levels represent adjusted sound levels. The adjustments are made according to the frequency content of the sound. Another sound scale is the C-weighted scale (dBC). In contrast to the A-weighted scale, the C-weighted scale provides no adjustment to the noise signal over most of the audible frequency range. The C-weighted scale is generally used to measure impulsive noise such as airblasts from explosions, sonic booms, and gunfire.

Waterborne Noise

Waterborne (underwater) sound measurements are different from airborne sound measurements. Because of the differences in reference standards, noise levels cited for air do not equal underwater levels. The reference pressure used for underwater noise measurements is 1 micro-Pascal (μPa) at 1 meter (1μPa-m), which is lower than that used for airborne sound measurements. In addition, underwater noise measurements typically do not have any frequency weighting applied (i.e., A-weighted or C-weighted), while airborne noise is often measured using one of several frequency

weighting scales. In many cases, underwater noise levels are reported only for limited frequency bands, while airborne noise is usually reported as an integrated value over a very wide range of frequencies. To compare noise levels in water to noise levels in air, one must subtract 61.5 dB from the noise level referenced in water to account for the difference in reference pressure (USN undated).

Because the mechanical properties of water differ from those of air, sound travels faster through water (1,500 meters per second) than air (about 340 meters per second) (USCG and MARAD 2003). Temperature also affects the speed of sound, which travels faster in warm water than in cold water. Since the wavelength of a sound equals the speed of sound divided by the frequency of the wave (measured in Hertz [Hz]), lower frequency sounds have longer wavelengths than higher frequency sounds. For example, a 20-Hz sound wave is 75 meters long in the water, but only 17 meters long in the air (USCG and MARAD 2003). In sea water, the rate at which sound is absorbed is proportional to the square of sound frequency; therefore, high frequency sounds are absorbed quickly and do not travel as far through the water as low frequency sounds.

Regulatory Framework for Noise and Standard Operating Procedures

USCG NEPA Implementing Procedures (COMDTINST M16475.1-D) require a discussion of the existing conditions in the surrounding communities, including noise regulations. USEPA, DOD, and other Federal agencies having nonoccupational noise regulations use the DNL as their principal noise descriptor for community assessments (Cowan 1994).

The USCG Safety and Environmental Health Manual (COMDTINST M5100.47) establishes requirements for noise, which include compliance with local noise ordinances and the identification and assessment of hazardous noise sources. The USCG defines a hazardous noise as continuous sound levels exceeding 84 dBA or impact noises exceeding 140 dBA. Noise produced by USCG watercraft or by other USCG facility activities should comply with USCG, state, and local noise guidelines. Using the Society of Automotive Engineers (SAE) J34 method, the USCG recommends 86 dBA as the maximum noise level that watercraft may generate while operating at full speed at a distance of 50 feet from a receiver (PWIA 2002).

Most states and territories have developed land use plans and regulations that incorporate noise thresholds and standards in accordance with the Federal Noise Control Act of 1972 (42 U.S.C. 4901, 4918). According to the National Association of State Boating Law Administrator's *Reference Guide to State Boating Laws, 6th edition, 2000*, the State of California has established a maximum operational noise level for watercraft. The maximum noise levels for motorboats are 86 dB for

engines built prior to January 1976; 84 dB for engines built prior to January 1978; and 82 dB for engines built prior to January 1978. In addition, the State of California has a maximum noise level of 74 dB for personal watercraft and limits the use of personal watercraft to 1/2 hour after sunset to 1/2 hour before sunrise. The State of California, like most states, incorporates the SAE tests J-2005 (stationary test) and J-1970 (shoreline test). USEPA has determined 75 dB at 50 feet as an acceptable noise level to protect public health and welfare (PWIA 2002). For analysis purposes of this EA, the USEPA standard will be used.

The USCG also cooperates with local governments or host agencies to ensure that the facilities comply with local noise standards and land use regulations. The City of San Diego, California, has a general noise ordinance that prohibits any noise disturbance to the extent that the one-hour average sound level exceeds the applicable limit. Another consideration for these sensitive areas is the density and zoning of the areas and the time of day the event occurs.

Human Response to Noise

Human response to noise varies according to the type and characteristics of the noise, the distance between the source and the receptor, receptor sensitivity, and time of day. Human hearing varies in sensitivity for different sound frequencies. The ear is most sensitive to sound frequencies between 800 and 8,000 Hz and is least sensitive to sound frequencies below 400 Hz or above 12,500 Hz. Several different frequency-weighting metrics have been developed using different dB adjustment values. The most commonly used dB-weighting schemes are the A-weighted and C-weighted scales, as described above.

Most people are exposed to sound levels of DNL 50 to 55 dB or higher on a daily basis. Studies specifically conducted to determine noise impacts on various human activities show that about 90 percent of the population is not significantly bothered by outdoor sound levels below DNL 65 dB (USDOT 1980). Studies of community annoyance in response to numerous types of environmental noise show that DNL correlates well with impact assessments and that there is a consistent relationship between DNL and the level of annoyance. The methodology employing DNL and annoyance level has been successfully used throughout the United States in a variety of settings, ranging from urban to rural.

Marine Animals' Response to Noise

Increasing attention is being paid to the impacts of anthropogenic (human-generated) noise sources on marine animals, especially those associated with the military, as these sources tend to be much louder

and can be widespread (ONR 2000, Richardson et al. 1995). Both above-water (e.g., helicopters) and underwater (e.g., vessels) noise is recognized as a disturbance to marine animals. Information on species response to noise is presented in Section 4.2.2 of this EA.

3.4.2 Affected Environment

Airborne Noise

The City of San Diego and County of San Diego both regulate noise thru municipal codes and county ordinances. Within the ROI, the City and County of San Diego each define their own noise rules and limits for watercraft. The City of San Diego's Municipal Code defines noise regulations under Chapter 5, Article 9.5, *Noise Abatement and Control*. Specifically, *Watercraft* noise regulations are identified under Chapter 5, Article 9.5, and Section 0403. The County of San Diego defines watercraft noise regulations under Section 36.408 of the *Noise Abatement and Control Ordinance* (County of San Diego 2003b). Acceptable noise limits are defined by both government entities by land use type and time of day with the most restrictive noise allowance limits set between 10 p.m. to 7 a.m. As an example, acceptable noise limits vary from 40 dB for residential lands from 10 p.m. to 7 a.m. and 50 dB from 7 a.m. to 7 p.m. for the City of San Diego (City of San Diego 2004). A noise activity within or near this type of land use should not exceed these thresholds.

Any area or land use type will have an airborne ambient sound level that varies based upon the setting in which it is measured. For example, in a wilderness setting, ambient sound levels range from DNL 20 to 30 dB; in residential areas, they range between DNL 30 to 50 dB; and in urban residential areas, they range between DNL 60 to 70 dB (FICON 1992). When sound levels are DNL 55 dB or less in outdoor areas, where the absence of noise is important for functional land use, there is no reason to suspect that the general population would be at risk from any of the identified effects of noise (i.e., activity interference or annoyance) (USEPA 1978). Specific ambient airborne sound levels are not available for the ROI.

Other sources of noise within the ROI include overflight of aircraft from various airports in the vicinity, such as McClellan-Palomar Airport. The McClellan-Palomar Airport is approximately 2 miles east of the Pacific Ocean near Carlsbad, CA. The noise from the airport's aircraft activity projects 60 DNL noise levels out to the ocean (County of San Diego 2003a).

Waterborne Noise

Anthropogenic noise sources in the ROI include shipping, recreational boating, dredging, shoreline construction, urban and industrial development, helicopters, and sonar use. Noise generated from these activities can originate in water or air and can be stationary or transient. The intensity and frequency of these noise emissions vary significantly, both between and among industry sources. In general, the frequencies of anthropogenic sounds are below 1 kilo-hertz (kHz); however, shipping is a major contribution to underwater noise and ranges in frequency from 0.005 to 0.5 kHz (NRC 2003). Sound pressure levels for various types of ships are presented in Table 3-5.

Table 3-5. Underwater Sound Pressure Levels for Various Vessels

Vessel (length) and Description	Frequency	Source Level (dB re 1µPa-meter)
Outboard drive, 23 feet (2 engines, 80 horsepower each)	630, 1/3 octave	156
Twin Diesel, 112 feet	630, 1/3 octave	159
Small Supply Ships, 180 to 279 feet	1000,1/3 octave	125–135 (at 50 meters)
Freighter, 443 feet	41, 1/3 octave	172

Source: Richardson et al. 1995

Note: USCG cutters range from 110 to 387 feet. These underwater sound pressure levels cannot be directly compared to airborne decibel levels.

Due to the relatively large number of recreational and cargo vessels that visit the area each year, watercraft can be a prominent source of waterborne noise in the ROI. According to the USACE, the San Diego Harbor accommodated about 33,248 vessel trips in 2002 (USACE 2002).

3.5 Public Safety

3.5.1 Definition of the Resource

A safe environment is one in which there is no, or an optimally reduced, potential for death, serious bodily injury or illness, or property damage. Public safety is one of the USCG's primary missions, as the USCG is the prominent overseer of the safety of the MTS. Major members of the MTS include Federal agencies, commercial groups, state and local groups, and public and community groups (USCG 2002a). The MTS contains physical elements, including the waterways, ports, and the network of railroads, roadways, and pipelines that connect the waterborne portions of the system to the rest of the nation (USDOT 1999). The physical elements also include the vessels and vehicles that move goods and people within the system. The physical network is supported by a series of systems that facilitate the movement of goods and people, and provide access for recreation and to

natural resources. Aspects such as geography, environmental conditions, and the number and types of vessels make the MTS diverse.

U.S. ports must provide safe and efficient rapid turnaround capabilities to accommodate expanding trade and the increasing size and speed of oceangoing ships, many of which are foreign. U.S. ports also handle a large volume of coastal and inland traffic. Since the events of September 11, 2001, the safety of the country's ports and its maritime system has received increased scrutiny and concern.

3.5.2 Affected Environment

The MSST would operate primarily within the Port of San Diego and the coastal waters from the U.S./Mexico border north to Dana Point. The Port of San Diego is on Pacific Avenue in downtown San Diego. The Port of San Diego is a special government entity, created in 1962 by an act of the California legislature to manage San Diego Harbor and administer the public lands along San Diego Bay. The Port is governed by a seven-member Board of Port Commissioners, with the Chula Vista, Coronado, Imperial Beach and National City city councils appointing one commissioner each, and the San Diego City Council appointing the remaining three commissioners. The Board establishes policies under which the Port's staff supervised by the Executive Director, conducts its daily operation (Port of San Diego 2004)

San Diego Bay is an uncongested harbor about 96 nautical miles southeast of Los Angeles, just north of the U.S./Mexico border. It is only a few miles to the major city of Tijuana, Mexico and 135 miles from Mexicali, Mexico. San Diego's close proximity to open ocean and lack of shipping congestion make it an excellent location for cargo shipping.

The Port serves as a trans-shipment facility for the region, which includes San Diego, Orange, Riverside, San Bernardino, and Imperial counties, plus northern Baja California, and Arizona. The year-round mild climate is conducive to handling all types of cargo: container, dry bulk, liquid bulk, refrigerated, vehicle, breakbulk, project, and others. The Port's two marine cargo facilities are Tenth Avenue Marine Terminal and National City Marine Terminal. The Port also owns the B Street Cruise Ship Terminal. In the most recent monthly report published by the Port of San Diego, the Port recorded 189,644.28 tons of cargo, total revenue of $1,007,849.55, and 39 ships in April 2003.

In addition to the cargo facilities operated by the Port of San Diego, the Port also operates a thriving cruise and real estate business. The Port of San Diego welcomes over 190 cruise ships throughout the year at San Diego's B Street Cruise Ship Terminal. Seasonally, Holland America Line and Celebrity

Cruises homeport in San Diego. Other lines that will visit San Diego during the upcoming year include Princess, Carnival, Norwegian, Royal Caribbean, Radisson Seven Seas, Crystal Cruises, Hapag-Lloyd Line, and The World of ResidenSea (Port of San Diego 2004).

The B Street Cruise Ship Terminal is in downtown San Diego a short distance from numerous tourist attractions. Recently, San Diego has been found on cruise ship itineraries that include destinations including the Caribbean, Mexico, Hawaii, and Tahiti (Port of San Diego 2004).

In addition to its cruise business, the Port of San Diego also operates a real estate business. Real estate is one of five strategic activity areas of the San Diego Unified Port District. The Port of San Diego administers approximately 400 separate tenancy agreements. Revenue from real estate assets and developments, primarily building and ground rents and concession fees, was approximately $62 million in FY 01/02.

4. Environmental Consequences

4.1 Introduction

This chapter presents an analysis of the potential direct and indirect impacts of the Proposed Action and the No Action Alternative on the affected environment as characterized in Chapter 3. Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. An analysis of potential cumulative effects is provided in Chapter 5.

As described in Chapter 2.1, the Proposed Action is the stand up and operation of the San Diego MSST. Currently, vessels and manpower are being diverted from other missions in order to provide additional security for the nation's ports, including the Port of San Diego. The No Action Alternative fails to meet the purpose and need of the USCG mission. Under the No Action Alternative, disruption to other missions would continue to result in further demand on manpower and current assets. This scenario of vessels and manpower at maximum capacity would possibly make it easier for a terrorist attack to occur. The result might be a potential for adverse environmental impacts. Terrorists could strike at military or commercial facilities in these ports, creating health and safety hazards for the surrounding populace, impacting appropriate emergency responses, employment and trade, and marine life. The impacts could be immediate (loss of life) or long-lasting (disruption of commerce activities that could impact the long-term economy). Recovery time would depend on the severity and extent of the loss.

Potential impacts are addressed in the context of the scope of the Proposed Action as described in Chapter 2.1, and in consideration of the potentially affected environment as characterized in Chapter 3.

4.2 Biological Resources

4.2.1 Significance Criteria

This section evaluates the potential impacts on biological resources under the Proposed Action and the No Action Alternative. The significance of impacts on biological resources is based on the following four factors:

- Importance (i.e., legal, commercial, recreational, ecological, or scientific) of the resource
- Proportion of the resource that would be affected relative to its occurrence in the region

- Sensitivity of the resource to proposed activities
- Duration of ecological ramifications

Impacts on biological resources are significant if species or habitats of high concern are adversely affected over relatively large areas. Impacts are also considered significant if disturbances cause reductions in population size or distribution of a species of importance. Threatened or endangered species, if present, will be discussed under each biological resource area.

There is no scientific consensus regarding absolute thresholds for significance regarding noise (MMS 2000). Assessment of potential risk to a particular species must often begin with an estimate of frequency ranges to which the animal's hearing is most sensitive, and the associated thresholds. The range of sounds produced by a species is generally associated with ranges of good hearing sensitivity, but many species exhibit good hearing sensitivity well outside the frequency range of sounds they produce (USN 2002). Scientific research indicates that best hearing thresholds for marine vertebrates range from about 60 dB re 1 μPa at 0.1 kHz to about 40 dB re 1 μPa at 10 kHz.

Protected and Sensitive Habitats

Impacts on protected and sensitive habitats would be significant if MSST activities resulted in any of the following outcomes:

- Temporary or permanent loss of any sensitive, protected, or reporting area habitat
- Direct loss or damage of any sensitive resource within a protected or sensitive habitat
- Excessive noise or presence from normal USCG activities that lessens the habitat value

Wetlands, Floodplains, Seagrass

The significance of impacts on wetland resources is proportional to the functions and values of the wetland complex. Wetlands function as habitat for plant and wildlife populations, including threatened and endangered species that depend on wetlands for their survival. Wetlands are valuable to the public for flood mitigation, storm water runoff abatement, aquifer recharge, water quality improvement, and aesthetics. Quantification of wetlands functions and values, therefore, is based on the ecological quality of the site as compared with similar sites, and the comparison of the economic value of the habitat with the economic value of the proposed activity that would modify it. A significant adverse impact on wetlands would occur should either the major function or the value of the wetland be significantly altered.

Significance criteria for impacts on floodplains are based on EO 11988 and the protection of public health and safety. Impacts on floodplains would be significant if the Proposed Action involved major construction in a floodplain that would substantially damage floodplain resources or would risk public health and safety due to flooding.

Significance criteria for impacts on seagrass are based on the temporary or permanent loss of seagrass and the impact on species that seagrass in the ROI supports.

Marine Mammals

Impacts on marine mammals would be significant if MSST activities resulted in any of the following outcomes:

- Temporary or permanent loss of any habitat.
- Direct loss (take) of a substantial number of a specific species that would affect the species' ability to survive.
- Level A Harassment, defined in the MMPA as pursuit, torment, or annoyance, that has the potential to injure.
- Permanent loss of breeding areas and habitat.
- Substantial interference with movement of any resident species.

Marine mammal hearing varies among species; however, as a group, marine mammal hearing ranges from 0.01 to 200 kHz. Broad generalizations can be made about groups of marine mammals. For example, most toothed whales (odontocetes) hear well in ultrasonic ranges, with functional hearing from 0.2 to 100 kHz. Some toothed whales are able to hear frequencies as high as 200 kHz (NRC 2003). Models indicate that baleen whales (mysticetes) have lower frequency hearing and cannot hear frequencies above 20 to 30 kHz (NRC 2003). It is predicted that blue, fin, and bowhead whales are predicted to hear best in the range of 0.01 to 0.015 kHZ and Bryde's whales vocalize using frequencies ranging from 0.07 to 0.245 kHz. Most pinnipeds have peak hearing sensitivities between 1 and 20 kHz. Sea otters vocalize in the range of 3 to 5 kHz and manatees vocalize in the range of 2.5 to 5 kHz.

The general consensus is that 180 dB re 1 μPa is the threshold above which some potentially serious problems in marine mammals' hearing capability could occur (USN 2002). The U.S. Navy concluded that a sound in the 0.1 to 0.5 kHz frequency band could cause serious problems in marine mammal's hearing capability from the following exposures:

- 1 second at 204 dB
- 1 minute at 186 dB
- 20 minutes at 172 dB
- 8 continuous hours at 160 dB

Sea Turtles

Impacts on sea turtles would be significant if the stand up and operation of the MSST resulted in any of the following outcomes:

- Temporary or permanent loss of critical habitat.
- Direct loss (take) of a substantial number of a specific species that would affect the species' ability to survive.
- Permanent loss of breeding and nesting areas and habitat.
- Substantial interference with movement of any species.

Little is known about sea turtle hearing. Past research based on brain physiology indicates that sea turtles are able to hear sounds with frequencies ranging from 0.08 to 2 kHz, with maximum sensitivity levels reported between 0.1 and 0.8 kHz and 0.3 and 0.4 kHz (Lenhardt 1994, NRC 2003). Loggerhead sea turtles are capable of hearing sound from 0.25 to 1 kHz (Moein et al. 1994). Preliminary data from continuing research on green sea turtles indicate that they are capable of hearing tones ranging from 0.1 kHz to 0.5 kHz, with a threshold between 107 dB and 119 dB at 0.2 kHz and a threshold between 121 dB and 131 dB at 0.4 kHz (ONR Undated).

Fish

Fisheries impacts could result primarily from impacts on fish habitat changes to fish populations. Impacts on fisheries would be significant if the stand up and operation of the MSST resulted in any of the following outcomes:

- Overfishing resulting in the species' inability to survive.
- Permanent loss of breeding areas, EFH or Habitat Area of Particular Concern.
- Substantial interference with movement of any resident species or migration of anadramous species (i.e., species that migrate from salt water to fresh water).

Generally, fish hearing ranges from 0.5 to 1 kHz, although some fish can hear frequencies as high as 200 kHz.

Coastal and Other Birds

Impacts on coastal and other birds, particularly diving birds, would be significant if the stand up and operation of the MSST resulted in any of the following outcomes:

- Temporary or permanent loss of critical habitat, including breeding and nesting areas.
- Direct loss (take) of a substantial number of a specific species that would affect the species' ability to survive.
- Harassment of nesting and foraging areas resulting in the species' inability to survive.
- Substantial interference with migration.

Studies with other (noncoastal) species indicate that birds are sensitive to low frequency sounds in air. However, there is little data on seabird hearing underwater, and there is no evidence that seabirds are affected by changes in underwater sound (USN 2001).

4.2.2 Potential Impacts

Under the Proposed Action, minor adverse impacts on protected and sensitive habitats, wetlands and floodplains, marine mammals, sea turtles, EFH, fisheries, and threatened and endangered species and their critical habitat would be expected. This assessment is based on the proposed stationing and operation of an MSST in the San Diego ROI.

MSST operations would comply with laws relating to protected and sensitive habitats, marine mammals, and threatened and endangered species (including MMPA, Research, and Sanctuaries Act; the MSA; the Oil Pollution Act; the ESA) and USCG programs such as Ocean Steward and Ocean Guardian.

Protected and Sensitive Habitats

Proposed Action. No direct impacts on protected and sensitive habitats would occur as a result of the Proposed Action. Proposed construction would be short-term and would consist of minor interior renovations to two buildings. Neither the proposed construction, nor the public boat ramp at MCRD is within protected or sensitive habitats.

The Defender Class Boats are similar to other boats in the highly trafficked areas which they patrol; therefore, they would not introduce new or unanticipated direct impacts on marine resources within the ROI. Indirect impacts on protected and sensitive habitats from emissions on air or water might occur, but would be negligible. Under a normal operational scenario with the Defender Class Boats

operating at 10 to 12 knots, the Proposed Action would have no potential to disturb protected areas or significantly impact sensitive habitats. Speeds in excess of 12 knots are only expected to be utilized in emergency situations where public safety or national security is at risk. An MSST would not enter a protected or sensitive habitat unless pursuing a threat. A boat being pursued by an MSST might be deterred from entering shallow, sensitive habitats to avoid becoming damaged or grounded and thus apprehended. Boats traveling at high speed have the potential for direct, adverse impacts on seagrass beds, coral reefs, or protected animals from boat hull or propeller strikes. As boats travel faster, they typically ride higher in the water, possibly lessening the potential for direct impacts. Such impacts are expected to be rare, and therefore would not be significant. Potential direct impacts on animals are discussed further in the following sections. High-speed boats might also have indirect, adverse impacts by producing large wakes that would cause sand to bury or partially bury seagrass beds. Such impacts would also be rare and short-term, and therefore would be minimal.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is, and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased demand on vessels and manpower and disruption to other missions would continue. This would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects on protected and sensitive habitats. Recovery would depend on the extent and type of damage.

Wetlands, Floodplains, and Seagrass

Proposed Action. No significant adverse direct impacts on wetlands or seagrass would be expected as a result of the Proposed Action. Onshore construction associated with the Proposed Action would consist of minor interior renovations to two buildings and would therefore have no impact on wetlands or seagrass. The appropriate FEMA FIRM indicates that the MCRD is located in "Zone D," where no analysis of flood hazards has been conducted. Because the San Diego River was diverted from its original channel, the Proposed Action includes only interior renovations to existing facilities and no impervious areas would be created, the Proposed Action would not stimulate further development in a floodplain and is consistent with EO 11988. The 8-step process for compliance with EO 11988 was conducted in conjunction with the USCG's public involvement process for this EA (see Section 1.5). The USCG will issue its findings and a public explanation pursuant to the EO in conjunction with the Decision Record for this EA.

The Defender Class Boats are similar to other boats in the highly trafficked areas which they patrol; therefore they would not introduce new or unanticipated impacts within the ROI. Shallow-water estuarine wetland areas would not be used during MSST operations, and the low speeds used during normal operations would minimize impacts on benthic habitat or submerged obstacles. Indirect impacts from emissions on air or water might occur, but would be negligible.

Under a normal operational scenario with the Defender Class Boats operating at 10 to 12 knots, the Proposed Action would have no potential to disturb wetlands or seagrass. Speeds in excess of 12 knots are only expected to be utilized in emergency situations where public safety or national security is at risk. An MSST would not enter a seagrass bed unless pursuing a threat. A boat being pursued by an MSST might be deterred from entering seagrass beds to avoid becoming damaged or grounded and thus apprehended. Boats traveling at high speed have the potential for direct, adverse impacts on seagrass beds from boat hull or propeller strikes. As boats travel faster, they typically ride higher in the water, possibly lessening the potential for direct impacts. Such impacts are expected to be rare, and therefore would not be significant. High-speed boats might also have indirect, adverse impacts by producing large wakes that would cause sand to bury or partially bury seagrass beds. Such impacts would also be rare and short-term, and therefore would be minimal.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased demand on vessels and manpower and disruption to other missions would continue. This would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected, due to the increased risk and potential of a terrorist attack, with the potential for loss of wetlands and their unique ecosystems. Recovery would depend on the extent of loss.

Marine Mammals

Proposed Action. Although three species of marine mammals are known to inhabit or frequent San Diego Bay (the California sea lion, harbor seal, and the Pacific bottlenose dolphin) and the ROI, no significant adverse direct impacts on marine mammals are expected to occur as a result of the Proposed Action. The USCG has protocols in place to protect marine mammals. These protocols allow for the general protection and conservation of various marine species, and include specific measures to prevent injury or death due to ship strikes. These protocols also allow for strategic collaboration with various Federal and state agencies to implement major actions (USCG 2003). The

USCG's current COMDTINSTs, regulations, and procedures to avoid marine mammals would continue under the Proposed Action. While the purpose of the MSST is not to provide marine resource protection or law enforcement, the Proposed Action would comply with all Federal and state environmental laws and USCG protocols, including Ocean Steward. Indirect impacts from emissions on air or water quality might occur, but would be negligible.

To guard against any adverse impacts of the Defender Class Boats operation on marine mammals, the USCG would continue to adhere to the protective measures in place including the policies and goals stated in Ocean Steward (see Appendix F). Therefore, there would be no significant adverse impacts on marine mammals as a result of MSST operations.

For all MSST operations other than emergency operations, the USCG would continue to abide by its speed guidance published October 22, 1997, for vessels operating along the Pacific coast, *Coast Guard Vessel and Speed Approach Guidance* for whales. This guidance states

> *Reduction in vessel speed should be considered when a whale is sighted, known to be in the immediate area, or known to have been sighted within five nautical miles. Speeds as appropriate, yet navigationally prudent, to avoid collision with a whale, and if necessary, reduce speed to a minimum at which the vessel can be kept on course or come to all stop. Do not approach whales head-on, nor approach within 100 yards. Approach distances may vary if the Coast Guard vessel is assisting in the rescue of an endangered whale or performing duties to enforce the Endangered Species Act or Marine Mammal Protection Act.*

Under a normal operational scenario with the Defender Class Boats operating at 10 to 12 knots, MSST operations have the potential for direct, adverse impacts on marine mammals from collisions with the animals. However the Defender Class Boats are designed to be highly maneuverable, which would assist them in avoiding collisions with marine mammals. Furthermore, to prevent the Defender Class Boats from adversely impacting marine mammals, the USCG would continue to adhere to the protective measures described in the Protected Living Marine Resources Program (COMDTINST 16475.7) and the USCG Participation in the Marine Sanctuaries Program (COMDTINST 16004.3A).

The Defender Class Boats are similar to other boats in the highly trafficked areas they patrol; therefore, they would not introduce new or unanticipated impacts within the ROI. The six new Defender Class Boats would be a negligible addition to the large number of commercial and recreational vessels that use the Port of San Diego on a daily basis. It is likely that only two to four

Defender Class Boats would be used under normal operations. Even though the Defender Class Boats are capable of 40 knots, this speed would not be used on a continuous basis and would usually be reserved for emergency security operations which necessitate high speed.

Implementation of the Proposed Action could result in minor adverse impacts on marine mammals resulting from localized, short-term increases in airborne and waterborne noise. It is anticipated that only temporary, minor adverse impacts, if any, would occur. Given the small number and size of the Defender Class Boats involved in the Proposed Action, as well as their high level of maneuverability and relatively slow operating speed (during normal operations), only minor adverse impacts on marine mammals would be expected from the stand-up and operation of an MSST in the Port of San Diego.

Pursuant to Section 7 of the ESA, the USCG initiated informal consultation with NOAA Fisheries, Protected Resources Division and the USFWS on September 2, 2004. All correspondence relating to the Section 7 ESA consultation is presented in Appendix B.

The element of the Proposed Action that involves construction would consist only of interior building renovations and therefore have no potential to impact marine mammals.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased demand on vessels and manpower and disruption to other missions would continue. This would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected, due to the increased risk of a terrorist attack and the potential for significant adverse impacts on marine mammals that such an attack could cause. Recovery would depend on the extent of loss.

Sea Turtles

Proposed Action. While the green sea turtle (*Chelonia mydas*) is known to inhabit the ROI, no significant adverse direct impacts on sea turtles are expected to occur as a result of the Proposed Action. The USCG has protocols in place to protect sea turtles. These protocols allow for the general protection and conservation of various marine species, and include specific measures to prevent injury or death due to ship strikes. These protocols also allow for strategic collaboration with various Federal and state agencies to implement major actions (USCG 2003). While the purpose of the MSST is not to provide marine resource protection or law enforcement, the Proposed Action would

comply with all Federal and state environmental laws and all USCG protocols, including Ocean Steward.

Under a normal operational scenario with the Defender Class Boats operating at 10 to 12 knots, MSST operations have the potential for direct, adverse impacts on sea turtles from collisions with the animals. However the Defender Class Boats are designed to be highly maneuverable, which would assist them in avoiding collisions with sea turtles. Furthermore, to prevent Defender Class Boat operations from adversely impacting sea turtles, the USCG would continue to adhere to the protective measures described in the Protected Living Marine Resources Program (COMDTINST 16475.7) and the USCG Participation in the Marine Sanctuaries Program (COMDTINST 16004.3A).

The Defender Class Boats are similar to other boats in the highly trafficked areas they patrol; therefore, they would not introduce new or unanticipated impacts within the ROI. The six new Defender Class Boats would be a negligible addition to the large number of commercial and recreational vessels that use the Port of San Diego on a daily basis. It is likely that only two to four Defender Class Boats would be used under normal operations. Even though the Defender Class Boats are capable of 40 knots, this speed would not be used on a continuous basis and would usually be reserved for emergency security operations which necessitate high speed.

Speeds in excess of 12 knots are only expected to be utilized in emergency situations, where the MSST would be responding to a specific threat and public safety or national security is at risk. In emergency situations where the boat speed exceeds 13 knots, the risk of a collision with sea turtles would increase. Such impacts are expected to be rare, and therefore would not be significant. In the unlikely event of a collision between an MSST vessel and a sea turtle, the USCG would follow the emergency consultation procedures under 50 CFR Section 402.05.

Implementation of the Proposed Action could result in minor adverse impacts on sea turtles resulting from localized, short-term increases in airborne and waterborne noise. It is anticipated that only temporary, minor adverse impacts, if any, would occur. Given the small number and size of the Defender Class Boats involved in the Proposed Action, as well as their high level of maneuverability and relatively slow operating speed (during normal operations), only minor adverse impacts on sea turtles would be expected from the stand up and operation of an MSST in the Port of San Diego.

Pursuant to Section 7 of the ESA, the USCG initiated informal consultation with NOAA Fisheries, Protected Resources Division and the USFWS on September 2, 2004. All correspondence relating to the Section 7 ESA consultation is presented in Appendix B.

Proposed construction would consist of interior building renovations and would have no direct or indirect impact on sea turtles.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased demand on vessels and manpower and disruption to other missions would continue. This would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse impacts on sea turtles that such an attack might cause. Recovery would depend on the extent of loss.

Fish

Proposed Action. No significant adverse impacts on EFH are expected to occur as a result of the Proposed Action. The USCG would continue to enforce fisheries laws under its Ocean Guardian, Ocean Steward, and Protected Living Marine Resources Programs (COMDTINST 16475.7).

The Defender Class Boats are similar to other boats in the highly trafficked areas they patrol; therefore, they would not introduce any new or unanticipated impacts on fisheries or EFH within the ROI. Implementation of the Proposed Action could result in minor adverse direct impacts on fish from collision with the Defender Class Boats or its propellers. However, vessels produce pressure waves around them which reach the fish and generally cause them to move away from the boat. Therefore, the potential for collisions is reduced and the impact would be negligible.

Pursuant to Section 305(b) of the MSA, the USCG initiated an EFH consultation with NOAA Fisheries' Habitat Conservation Division on September 2, 2004. NOAA Fisheries concluded that the Proposed Action would not have an adverse impact on EFH. Pursuant to Section 7 of the ESA, the USCG also initiated informal consultation with NOAA Fisheries Protected Resources Division and the USFWS. All correspondence relating to EFH and ESA Section 7 consultation is included in Appendix B.

Proposed construction would be short-term and would consist only of minor interior renovations to two buildings; therefore, it would have no direct impacts on fish.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which

has been determined to be insufficient. Increased demand on vessels and manpower and disruption to other missions would continue. This would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected, due to the increased risk of a terrorist attack and the potential for significant adverse effects of a terrorist attack that might result in a loss or degradation of fishing areas. The potential for loss of EFH and fish species could also impact the nation's economy. Recovery would depend on the extent of the loss.

Coastal and Other Birds

Proposed Action. The Proposed Action would have no significant adverse impacts on coastal and other bird species that occur in the ROI.

Proposed construction would be short-term and would consist only of minor interior renovations to two buildings; therefore, it would have no impact on coastal or other bird species.

Implementation of the Proposed Action could result in minor adverse impacts on coastal and other birds resulting from localized, short-term increases in airborne and waterborne noise, and from air emissions. Normal MSST operations would not be within nesting and foraging habitat for threatened or endangered coastal or migratory birds. It is anticipated that only temporary, negligible adverse impacts, if any, would occur. Speeds in excess of 12 knots are only expected to be utilized in emergency situations, when the MSST responds to a specific threat and public safety or national security is at risk. In emergency situations the noise produced from the boats would increase and might cause birds to flush from their nesting, roosting, or foraging sites. However, the effect from the passing boats would be temporary and therefore not significant.

Pursuant to Section 7 of the ESA, the USCG initiated consultation with the USFWS on September 2, 2004. All correspondence relating to the ESA consultation is presented in Appendix B.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased demand on vessels and manpower and disruption to other missions would continue. This would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects on coastal and migratory birds. Recovery would depend on the extent of loss.

4.3 Air Quality and Climate

4.3.1 Significance Criteria

The potential impacts on local and regional air quality conditions near a proposed Federal action are determined based on the increases in regulated pollutant emissions relative to existing conditions and ambient air quality. Impacts on air quality in NAAQS "attainment" areas are considered significant if the net changes in project-related emissions result in one of the following situations:

- Violation of any national or state ambient air quality standards
- Exposure of sensitive receptors to substantially increased pollutant concentrations
- An increase of 10 percent or more in an affected AQCR

Emissions inventory impacts on air quality in NAAQS "nonattainment" and "maintenance" areas are considered significant if the net changes in project-related emissions result in one of the following situations:

- Violating any national or state ambient air quality standards
- Increasing the frequency or severity of a violation of any ambient air quality standard
- Exceeding any significance criteria established in a SIP
- Delaying the attainment of any standard or other milestone contained in the SIP

With respect to the General Conformity Rule, impacts on air quality would be considered significant if the Proposed Action would result in an increase of a nonattainment or maintenance area's emissions inventory by 10 percent or more for one or more nonattainment pollutants, or if such emissions exceed *de minimis* threshold levels established in 40 CFR 93.153(b) for individual nonattainment pollutants or for pollutants for which the area has been designated as a nonattainment or maintenance area. The General Conformity Rule applies, since the Proposed Action occurs in an area classified as nonattainment for O_3 and maintenance for CO.

The *de minimis* threshold emissions rates were established by USEPA in the General Conformity Rule to focus analysis requirements on Federal actions with the potential to have "significant" air quality impacts. Table 4-1 presents these thresholds, by regulated pollutant. These *de minimis* thresholds are similar, in most cases, to the definitions for major stationary sources of criteria and precursors to criteria pollutants under the CAA's New Source Review (NSR) Program (CAA Title I). As shown in Table 4-1, *de minimis* thresholds vary depending upon the severity of the nonattainment area designation by USEPA.

Table 4-1. General Conformity Rule *de minimis* Emission Thresholds

Pollutant	Status	Nonattainment Classification	*de minimis* Threshold (tons/yr)
Ozone (measured as – "precursors": Nitrogen Oxides (NO_x) or Volatile Organic Compounds (VOCs))	Nonattainment	Extreme Severe Serious Moderate/marginal (inside ozone transport region) All others	10 25 50 50 (VOCs)/100 (NO_x) 100
	Maintenance	Inside ozone transport region Outside ozone transport region	50 (VOCs)/100 (NO_x) 100
Carbon Monoxide (CO)	Nonattainment/ Maintenance	All	100
Particulate Matter < 10 microns (PM_{10})	Nonattainment Maintenance	Serious Moderate Not Applicable	70 100 100
Sulfur Dioxide (SO_2)	Nonattainment/ maintenance	Not Applicable	100
Nitrogen Dioxide (NO_2)	Nonattainment/ maintenance	Not Applicable	100

Source: 40 CFR 93.153(b)

4.3.2 Potential Impacts

The potential sources of increased criteria pollutant emissions under the Proposed Action would be from (1) watercraft operations, (2) personnel commuter travel, (3) maintenance and support activities, and (4) fuel storage and handling emissions.

Watercraft Operations

Proposed Action. The vessels and engines that would be used for the Defender Class Boats must meet specific requirements, including the capability of sustaining speeds of 40+ knots in calm seas. The proposed engines that would be used would be Honda 225-hp engines. These four-stroke engines would meet the speed requirements of the USCG and would fulfill Federal USEPA 2006 emissions requirements. The Proposed Action will be assessed on impacts on the AQCR current emissions inventory.

Under the Proposed Action, minor impacts on air quality would be realized. Calculations of air pollutant emissions from the proposed watercraft operations were performed based on a total of 9,000 hours of operations per year (see Appendix E).

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined not to be sufficient. Under this alternative, disruption to other missions would continue.

This scenario of vessels and manpower at maximum capacity would possibly make it easier for an attack to occur. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating the potential for impacts on the environment. The impacts could be immediate or long-lasting. Recovery time would depend on the severity and extent of the impact.

Personnel Commuter Travel

Proposed Action. The number of additional personnel is comparatively small (approximately 76) and would result in minor adverse impacts on air quality. Calculations of air pollutant emissions from the proposed personnel commuter travel operations were performed based on an average fleet model from 1995, commuting an average of 20 miles each way to the San Diego MSST facility 240 days a year (see Appendix E).

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined not to be sufficient. Under this alternative, disruption to other missions would continue.

This scenario of vessels and manpower at maximum capacity would possibly make it easier for an attack to occur. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating the potential for impacts on the environment. The impacts could be immediate or long-lasting. Recovery time would depend on the severity and extent of the impact.

Maintenance and Support Activities

Proposed Action. The Proposed Action would involve minor, temporary construction impacts from interior renovations to Buildings 310 and 239. USCG personnel would not occupy those areas during

renovations. Impacts to air quality were considered in the conformity determination, but were found to be negligible. Under the Proposed Action, only minor maintenance would be performed at the San Diego MSST facility. All major maintenance and repair would occur at other military or commercial facilities. For example, major maintenance or repair on the boat engines, trucks or vans would occur at the manufacturer's authorized facility. Since the maintenance schedule is not predictable, it is anticipated that there would be minor adverse impacts on air quality in the region.

The MSST would follow the USCG's procedures as described in the Hazardous Waste Management Manual (COMDTINST M16478.1B), internally known as the "Red Book." This manual is a compilation of standard operating procedures for employees handling hazardous materials and waste, asbestos, polychlorinated biphenyls, fuel tanks, lead, and biohazardous waste (USCG 1992). In addition, the MSST would follow all policies and procedures established by MCRD.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined not to be sufficient. Under this alternative, disruption to other missions would continue.

This scenario of vessels and manpower at maximum capacity would possibly make it easier for an attack to occur. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating the potential for impacts on the environment. The impacts could be immediate or long-lasting. Recovery time would be dependent on the severity and extent of the impact.

Fuel Storage and Handling Emissions

Proposed Action. No new fuel storage or dispensing facilities would be required under the Proposed Action. The Defender Class Boats would be refueled at existing marina facilities or gas stations. All dispensing facilities would have regulated vapor controls to reduce evaporative emissions. It is anticipated that there would be minor adverse impacts on air quality in the region.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined not to be sufficient. Under this alternative, disruption to other missions would continue.

The result would put further demand on manpower and current assets. This scenario of vessels and manpower at maximum capacity would possibly make it easier for an attack to occur. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating the potential for impacts on the environment. The impacts could be immediate or long lasting. Recovery time would depend on the severity and extent of the impact.

Conformity

Since the area affected by this Proposed Action is a USEPA-designated nonattainment and maintenance area, the USCG must comply with the Federal General Conformity Rule (40 CFR, Part 93). To do so, an analysis has been completed to ensure that, given the changes in direct and indirect emissions of the O_3 precursors (NO_x and VOCs), PM_{10}, and CO, the Proposed Action would be in conformity with applicable CAA requirements. The Conformity Determination requirements specified in this rule can be avoided if the project-related nonattainment pollutant emissions rate increases are below *de minimis* threshold levels for each pollutant and are not considered regionally significant. For purposes of determining conformity in this maintenance area, projected regulated pollutant emissions associated with the Proposed Action were estimated using available construction emissions and other nonpermitted emissions source information. The emissions calculations and *de minimis* threshold comparisons are collectively presented in Appendix E.

Table 4-2 presents total air quality emissions from the Proposed Action and Table 4-3 compares the Proposed Action emissions to the total San Diego Intrastate AQCR emissions inventory.

Table 4-2. Emissions for San Diego MSST Under the Proposed Action

Vehicle Category	VOC Emissions (tpy)	NO_x Emissions (tpy)	CO Emissions (tpy)	SO_x Emissions (tpy)	PM_{10} Emissions (tpy)
Watercraft Operations	5.18	11.83	51.77	0.46	0.49
Commuter and MSST Vehicles	1.28	1.43	17.90	0.09	1.42
Total Emissions:	**6.46**	**13.27**	**69.67**	**0.55**	**1.91**

Notes: tpy – tons per year

Table 4-3. Net Emissions for San Diego Intrastate AQCR Under the Proposed Action

	VOC	NO_x	CO	SO_2	PM_{10}
San Diego Intrastate AQCR Inventory (tpy)	90,318	102,386	627,064	60,063	5,879
Proposed Action Net Change (tpy):	6.46	13.27	69.67	0.55	1.91
Percent of San Diego Intrastate AQCR Inventory:	0.0072%	0.0130%	0.0111%	0.0094%	0.0032%

Source: USEPA 1999

Based on the emissions calculations and analyses completed for the Proposed Action, it is clear that the net change in NO_x, VOC, and CO emissions would be well below the *de minimis* threshold requirements and the regional significance requirements of the General Conformity Rule. As such, this Federal action is exempt from a Conformity Determination and all other requirements that are specified under the General Conformity Rule and applicable regulations (40 CFR 93).

4.4 Noise

4.4.1 Significance Criteria

This section addresses the noise impacts from the Proposed Action and the No Action Alternative. Examples of noise impacts from the Proposed Action include noise from vessels, construction equipment (temporary), and traffic. Noise produced by water vessels and supporting facilities while homeported or in transit can combine with other noise sources to affect nearby communities and natural resources. Noise impacts were only considered within the ROI. The impacts of noise on marine animals are discussed in Chapter 4.2.2.

The USCG establishes guidelines and develops cooperative agreements to mitigate impacts on neighboring communities. Federal and state laws and local ordinances establish standards and limitations for noise output from ports, airfields, heliports, helipads, power-generating plants, and motor vehicles. USCG activities are operated in accordance with all Federal and state laws and local ordinances.

Noise impact criteria normally are based on a combination of land use compatibility guidelines and factors related to duration and magnitude of the noise level, including the time of day and the conduct of operations.

Airborne Noise

The significance of above-water noise impact criteria normally is based on a combination of land use compatibility guidelines and factors related to duration and magnitude of the noise level, including the time of day and the conduct of operations. USEPA has determined that 75 dB at 50 feet is an acceptable noise level to protect public health and welfare (PWIA 2002).

Waterborne Noise

The significance of waterborne (underwater) noise is based on the duration and magnitude of the noise level and is relative to the existing ambient noise level. The significance criteria of impacts of waterborne noise on marine organisms and other biological resources are discussed in Section 4.2.1.

4.4.2 Potential Impacts

The Proposed Action would result in minor adverse noise impacts on human health and welfare under normal operating conditions. A detailed description of the analysis is presented below.

Airborne Noise

Proposed Action. Test data for the Honda 225-hp outboard engine, running at full throttle on a standard boat hull, found that the airborne noise produced was 72.2 dbA at 82 ft (25 m) from the source (Honda 2004). Test data was not available for the engines at 50 ft (15 m); however the engine speed was higher than the normal operation speed of 10-12 knots. Therefore, noise emissions from the MSST should be below the threshold of 75 dB at 50 ft (15 m) to protect public health and welfare.

It is anticipated that the additional airborne noise created by the Proposed Action would be indistinguishable from existing vessel activity and ambient noise in the ROI. Minor adverse noise impacts could occur in the ROI during unusual events (i.e., high-speed pursuits), depending on the location of the event relative to the location of sensitive noise receptors. The potential for such impacts would be minimized by the use of four-stroke engines on the Defender Class Boats.

Minor noise impacts on human health and welfare could result from the Proposed Action under normal operating conditions. Since there are no identified noise-sensitive areas in the ROI, sound exposure levels were not calculated. The ROI is a large geographic area comprising the Port of San Diego region, which includes the coastal waters from the U.S./Mexican border north to Dana Point (Figure 1-2). Airborne noise impacts from marine vessel operations is rarely an issue of concern because the majority of the population lives near waterways and has become familiar with the sound of passing boats and ships. Under normal operating conditions, vessel speeds would be expected to

be generally low (10 to 12 knots). It is anticipated that the MSST would operate 12 hours a day, 7 days per week and that there would be two to three boats operating at any given period. All operations of the MSST would be in accordance with all Federal and state laws and local noise ordinances.

Minor noise impacts might result from the minor interior renovations to the MSST storage and administrative facilities. These impacts would be localized and would be short-term in nature.

No Action Alternative. Under the No Action Alternative, existing conditions would remain unchanged and the MSST would not be stood up. Because of the important role that the Port of San Diego plays in the local, state, and regional economy, the Port would continue to pursue its major economic duties. Since thousands of ships navigate the Port annually, existing noise conditions would persist in their current state. The addition of six Defender Class Boats would not occur and they would not contribute to the noise environment. The USCG would maintain its current level of protection, which has been determined to be insufficient. Under this alternative, disruptions to other missions would continue and the utilization of vessels and manpower at maximum capacity could possibly make it easier for an attack to occur. Short-term temporary noise impacts could occur if the selection of this alternative results in a terrorist attack on military or commercial facilities in the Port. Recovery time would depend on the severity and extent of the impact.

Waterborne Noise

Proposed Action. No significant impact on existing ambient noise levels would result from the Proposed Action. Increase in vessel traffic from the addition of six Defender Class Boats would be negligible relative to the number of vessels that already utilize the ROI. Underwater noise generated by existing vessels is variable and pervasive, and would not be significantly increased by the addition of six Defender Class Boats. MSST vessel operations would be conducted at relatively low speeds (10 to 12 knots), except during an unusual event (i.e., high-speed pursuit). It is anticipated that the proposed USCG operation within the ROI would be indistinguishable from existing vessel activity and the ambient noise environment. During unusual events, minor short-term adverse noise impacts could occur in the ROI, depending on the location of the event relative to a sensitive-noise receptor. The likelihood of such impacts would be minimized by the use of four-stroke engines on the Defender Class Boats.

No Action Alternative. Under the No Action Alternative, existing conditions would remain unchanged and the MSST would not be stood up. Because of the important role that the Port of San

Diego plays in the local, state, and regional economy, the Port would continue to pursue its major economic duties. Since thousands of ships navigate the Port annually, existing noise conditions would persist in their current state. The USCG would maintain its current level of protection, which has been determined to be insufficient. Under this alternative, disruptions to other missions would continue and the utilization of vessels and manpower at maximum capacity could possibly make it easier for an attack to occur. Short-term temporary noise impacts could occur if the selection of this alternative results in a terrorist attack on military or commercial facilities in the Port. Recovery time would depend on the severity and extent of the impact.

4.5 Public Safety

4.5.1 Significance Criteria

This section addresses the impacts on public safety as a result of the Proposed Action. If implementation of the Proposed Action were to substantially increase risks associated with the safety of USCG personnel (including MSST personnel), workers and visitors, or the local community, or substantially hinder the USCG's ability to respond to an emergency, it would represent a significant impact. Furthermore, if implementation of the Proposed Action would result in incompatible land use with respect to safety criteria, impacts on safety would be significant. This document assumes that the loss of one or more ships or the loss of life would be significant.

4.5.2 Potential Impacts

The establishment of the MSST would provide beneficial impacts on public safety through additional security to the military and commercial assets within the ROI.

Proposed Action. The Proposed Action would increase the USCG's ability to protect the critical Port of San Diego and the California coastline from warfare and terrorist attacks. The MSST operations would closely parallel USCG traditional port security operations, and would provide complementary, nonredundant capabilities that would be able to close significant readiness gaps in our nation's strategic ports. The MSST would escort a variety of vessels and maintain specific security zones in each port. It is capable of operating 7 days a week, 24 hours a day, in all weather conditions. It would operate with and be supported by both military and civilian government organizations and commercial and nongovernmental entities. Beneficial impacts would be expected from implementation of the Proposed Action.

No Action Alternative. Under the No Action Alternative, existing security conditions would remain unchanged and the MSST would not be stood up. The USCG would maintain its current level of protection, which has been determined to be insufficient. Additional boats and personnel would only be assigned to the San Diego MSST under unusual circumstances. Under this alternative, disruptions to other missions would continue and the utilization of vessels and manpower at maximum capacity could possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected and result in a terrorist attack on military, commercial, or residential facilities in the ROI. Such an attack could create health and safety hazards for the surrounding populace, and impact appropriate emergency responses. The impacts would be immediate, and could be temporary or long-lasting. Recovery time would depend on the severity and extent of the impact.

5. Cumulative Impacts

5.1 Cumulative Impacts Methods

Cumulative impacts on environmental resources result from incremental effects of proposed actions, when combined with other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor, but collectively substantial actions undertaken over a period of time by various agencies (Federal, state, and local) or individuals (40 CFR 1508.7). Informed decision making is served by consideration of cumulative impacts resulting from projects that are proposed, under construction, recently completed, or anticipated to be implemented in the reasonably foreseeable future.

Other projects evaluated in this section include planned or reasonably foreseeable projects by the USCG, other agencies, and businesses. Planned or reasonably foreseeable projects were identified through a review of public documents, Internet searches, other NEPA documents, and local newspaper articles.

5.2 Cumulative Impacts Analysis

Staff assigned to the MCRD San Diego include 265 officers, 1,605 enlisted, and 1,113 civilian personnel. The MCRD also hosts several tenant organizations. As of May 2004, the MCRD employed approximately 10,000 military and 1,000 civilians in full- or part-time positions. The total annual payroll for MCRD is $90 million, with an additional $40 million expended for operating expenses. Between 150 and 600 recruits graduate from recruit training nearly every week, with the ceremony attracting several hundred visitors to the region. The total estimated annual regional economic impact of the MCRD is $150 million (MCRD 2004). The U.S. Marine Corps has also identified numerous Capital Improvement Projects to update and improve MCRD facilities.

The Port of San Diego is a self-supporting public benefit corporation established in 1962 by an act of the California State Legislature. With some 600 employees and revenue of approximately $94.6 million, excluding airport revenue, in FY 2002, the agency oversees the protection and development of public tidelands surrounding San Diego Bay. The Port of San Diego hosts more than 190 cruise ships throughout the year at San Diego's B Street Cruise Ship Terminal.

San Diego Bay is an uncongested harbor about 96 nautical miles southeast of Los Angeles, just north of the U.S. Mexico border. It is only a few miles to the major city of Tijuana, Mexico and 135 miles

from Mexicali, Mexico. The population of San Diego County in 2000 was more than 2.8 million, a 12.6 percent increase over the 1990 population (MCRD 2004). San Diego's close proximity to open ocean and lack of shipping congestion make it an excellent location for cargo shipping. The Port serves as a trans-shipment facility for the region, which includes San Diego, Orange, Riverside, San Bernardino, and Imperial counties, plus northern Baja California, and Arizona points east. The year-round mild climate is conducive to handling all types of cargo: container, dry bulk, liquid bulk, refrigerated, vehicle, breakbulk, project, and others.

Table 5-1 summarizes potential cumulative effects on resources from the Proposed Action when combined with other past, present, and future activities. Compared to other ongoing and planned activities in the Port of San Diego, the Proposed Action is a relatively small initiative that would not measurably add to other activities within the Port of San Diego. The Proposed Action would not stimulate additional economic growth in the region, but would enhance current and future maritime activity by providing increased port security. Given the large number of recreational and commercial vessels that currently utilize the Port, the Proposed Action would cause a negligible increase in vessel traffic. Airborne and waterborne noise created by the Proposed Action would also be negligible compared to the existing ambient noise conditions.

5.3 Relationship between the Short-term Use of the Environment and Long-term Productivity

Short-term uses of the biophysical components of human environment include direct construction-related disturbances and direct impacts associated with an increase in population and activity that occurs over a period of less than 5 years. Long-term uses of human environment include those impacts that occur over a period of more than 5 years, including permanent resource loss.

Several kinds of activities could result in short-term resource uses that compromise long-term productivity. Filling of wetlands or loss of other especially important habitats and consumptive use of high-quality water at nonrenewable rates are examples of actions that affect long-term productivity.

The Proposed Action would not result in a change of land use and does not represent a significant loss of open space. The Proposed Action would not consume large amount of material. The Proposed Action would result in additional protection for the Port of San Diego and vicinity.

Table 5-1. Cumulative Effects on Resources

Resource	Past Actions	Current Background Activities	Proposed Action	Known Future Actions	Cumulative Effects
Biological Resources	Degraded historic habitat of sensitive and common wildlife species.	Development of MCRD, San Diego airport, and adjacent facilities impacted wildlife and their habitat.	Minor adverse impacts would be expected on marine mammals and sea turtles from MSST operations.	Intensive redevelop-ment would impact aquatic communities and their habitat.	Redevelop-ment would impact previously impaired, low-quality habitat. Effect not significant.
Air Quality	Nonattainmen t for O3 and attainment area for all other criteria pollutants.	Emissions from Defender Class Boats and vehicles.	Increased boat and vehicle traffic.	Continued growth in shipping and tourism.	Continued nonattainmen t for O3 and attainment area for all other criteria pollutants. Effect not significant.
Noise	San Diego airport, Interstate, and shipping are dominant noise sources.	Airport, road noise, and vessel traffic are dominant noise sources.	Increase in noise from Defender Class Boat operations.	None.	Existing airport, road noise, and vessel traffic will be dominant noise sources. Effect not significant.
Public Safety	Development of San Diego resulted in increased crime. Increased threat of terrorism in the United States.	Criminal activities commonly associated with urban environment and a heightened threat of terrorism.	Deterrence of terrorist activities or minimize adverse impact from terrorist activities.	Heightened threat of terrorism.	None.

5.4 Unavoidable Impacts

Unavoidable adverse impacts would result from implementation of the Proposed Action. Unavoidable adverse impacts are anticipated to be primarily short-term and localized.

Water Quality. The Proposed Action would result in increased use of the Port of San Diego and water bodies in the vicinity. The Defender Class Boats would be equipped with two 225-hp engines that meet USEPA standards. In addition, considering the type and number of vessels that frequent the Port of San Diego, significant impacts are not expected.

Biological Resources. The Proposed Action would result in minor adverse impacts on biological resources. The increase in airborne and waterborne noise could impact biological resources. The impacts would be temporary in nature. Although unavoidable, impacts on biological resources are not considered significant.

Air Quality. The Proposed Action would have unavoidable minor impacts due to increased emissions of O_3 from the Defender Class Boats and vehicles.

Noise. The Proposed Action would result in minor adverse impacts on noise. There would be an increase in waterborne and airborne noise. Although unavoidable, impacts on noise are not considered significant.

5.5 Irreversible and Irretrievable Commitment of Resources

An irreversible or irretrievable commitment of resources refers to impacts on or losses to resources that cannot be reversed or recovered. Examples include a species becoming extinct or the permanent conversion of wetlands to open water. In either case, the loss is permanent.

The irreversible environmental changes that would result from implementation of the Proposed Action involve the consumption of material resources, energy resources, land, biological habitat, and human resources. The use of these resources is considered to be permanent.

Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that use of these resources will have on future generations. Irreversible effects primarily result from use or destruction of a specific resource that cannot be replaced within a reasonable time frame (e.g., energy and minerals).

Material Resources. Material resources used for the Proposed Action include building materials (for building renovation), furniture, and various material supplies and would be irreversibly lost. None of the materials that would be consumed are considered scarce and would not limit other unrelated activities.

Energy Resources. Energy resources used for the Proposed Action would be irretrievably lost. These include petroleum-based products and electricity. During construction, gasoline and diesel would be used for the operation of construction vehicles. Consumption of these energy resources would not place a significant demand on their availability in the region. Therefore, no significant impacts would be expected.

Human Resources. The use of human resources for construction and operation is considered an irretrievable loss, only in that it would preclude such personnel from engaging in other work activities. However, the use of human resources for the Proposed Action represents employment opportunities, and is considered beneficial.

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7. References

City of San Diego 2004 — City of San Diego, CA. 2004. "Municipal Code Chapter 05, Public Safety, Morals and Welfare". Available online <*http://clerkdoc.sannet.gov/Website/mc/MunicodeChapter05.html*>. Accessed November 16, 2004.

County of San Diego 2003a — County of San Diego (CSD). 2003. "Part 150 Noise Study for McClellan-Palomar Airport." Available online <*http://www.co.san-diego.ca.us/dpw/airports/150noise.html*>. Accessed November 15, 2004.

County of San Diego 2003b — CSD. 2003. "County of San Diego, Process Guidance and Regulations/Statutes." <*http://www.sdcounty.ca.gov/dplu/Resource/docs/3~pdf/NoiseOrdinance.pdf*> . Accessed November 15, 2004.

Cowan 1994 — Cowan, James P. 1994. Handbook of Environmental Acoustics. 1994.

FEMA 1997 — Federal Emergency Management Agency (FEMA). 1997. Flood Insurance Rate Map for San Diego County. Map Number 06073C1877 F. June 19, 1997.

FICON 1992 — Federal Interagency Committee on Noise (FICON). 1992. Federal Agency Review of Selected Airport Noise Analysis Issues. August 1992.

Handley 1995 — Handley, Lawrence R. 1995. Seagrass Distribution in the Northern Gulf of Mexico. In: Status and Trends of the Nation's Biological Resources. U.S. Geological Service. National Biological Service. Available online: <*http://biology.usgs.gov/s+t/noframe/m4144.htm#21395*>. Accessed June 1 2004.

Honda 2004 — ED and ISO 14509 Outboard Noise Emission Test Report, Honda Motor Co., Ltd., October 28, 2004.

Lenhardt 1994 — Lenhardt, Martin T. 1994. "Seismic and very low frequency sound induced behaviors in captive loggerhead marine turtles (Caretta caretta)." In: Proceedings of the Fourteenth Annual Symposium on sea turtle biology and conservation. NOAA Technical Memorandum NMFS-SEFSC-351.

MCRD 2004 — Marine Corps Recruit Depot (MCRD). 2004. Draft Master Plan, Marine Corps Recruit Depot, San Diego, May 2004.

MEC 1988 — MEC Analytical Systems (MEC) 1988. *Biological Baseline and an Ecological Evaluation of Existing Habitats in Los Angeles Harbor and Adjacent Waters*. Volumes I to III. Prepared for the Port of Los Angeles.

MEC 1999 — MEC Analytical Systems (MEC) 1999. *Port of Los Angeles special study. August*. Prepared for the Port of Los Angeles.

MMS 2000 — MMS. 2000. Environmental Assessment of the Gulf of Mexico Deepwater Operations and Activities. OCS EIS/EA MMS 2000-001. New Orleans, LA: USDOI, MMS, Gulf of Mexico OCS Region.

NRC 2003 — National Research Council (NRC). 2003. Ocean Noise and Marine Mammals. National Academy Press, Washington, D.C.

ONR 2000	Office of Naval Research (ONR). 2000. Draft Environmental Impact Statement for the North Pacific Acoustic Laboratory. Arlington, Virginia. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Office of Protected Resources, Silver Spring, Maryland. State of Hawaii, Department of Land and Natural Resources, Honolulu, Hawaii. May 2000.
ONR undated	Office of Naval Research. Undated. Ocean Life: Green Sea Turtle – Current Research.
PFMC 1998a	Pacific Fisheries Management Council (PFMC). 1998. Final Environmental Assessment/Regulatory Impact Review For Amendment 11 to the Pacific Coast Groundfish Fishery Management Plan, Appendix B.
PFMC 1998b	Pacific Fisheries Management Council (PFMC). 1998. Amendment 8 for the Coastal Pelagic Species Fishery Management Plan, Appendix D.
Port of San Diego 2004	Port of San Diego. 2004. Port of San Diego website. About us. Available online: <*http://www.portofsandiego.org/sandiego_about*>. Accessed September 2004.
PWIA 2002	Personal Watercraft Industry Association (PWIA). 2002. The Facts About Personal Watercraft. Available online: <*http://www.pwia.org/factsabout.html*>. Accessed July 23, 2002.
Richardson et al. 1995	Richardson, W.J., C.R. Greene, C.I. Malme, and D.H. Thomson (Richardson et al.). 1995. Marine Mammals and Noise. Academic Press.
USACE 2002	U.S. Army Corps of Engineers (USACE), Navigation Data Center. 2002. Tonnage for Selected U.S. Ports. Available online: <*http://www.iwr.usace.army.mil/ndc/wcsc/portname02.htm*>. Accessed October 2004.
USCG 1992	U.S. Coast Guard (USCG). 1992. Hazardous Waste Management Manual. COMDTINST M16478.1B. Office of Engineering, Logistics and Development, Civil Engineering Division, Environmental Compliance and Restoration Branch. March 1992.
USCG 1996	USCG. 1996. NEPA Final Environmental Impact Statement (Volume I) for the U. S. Coast Guard Living Marine Resources (APLMR) Initiative. Prepared by Battelle Ocean Sciences. October 31, 1996.
USCG 2002a	USCG. 2002. U.S. Coast Guard/G-IPA Web page "Homeland Security." Available online: <*http://www.uscg.mil/news/homeland_security/homeland_security.htm*>. Accessed May 18, 2002.
USCG 2002b	USCG. 2002. Coast Guard Missions. Available online: <*http://www.uscg.mil*>. Accessed May 1, 2002.
USCG 2002c	USCG. 2002. Final Environmental Assessment for Replacement of Pier 36 Berth Alpha. Facilities Design and Construction Center (Pacific). March 2001.
USCG 2002d	USCG. 2002. U.S. Coast Guard Final Programmatic Environmental Impact Statement for the Integrated Deepwater System Project. March 22, 2002.
USCG 2003	USCG. 2003. Draft Environmental Assessment of the El Paso Energy Bridge Gulf of Mexico L.L.C. Deepwater Port License Application. September 2003.
USCG 2004	USCG. 2004. Maritime Safety and Security Teams (MSST). Program Fact Sheet.

USCG and MARAD 2003	U.S. Coast Guard and Maritime Administration (USCG and MARAD). 2003. Final Environmental Assessment for the Port Pelican LLC Deepwater Port License Application. Docket Number: USCG-2002-14134.
USDOT 1980	U.S. Department of Transportation (USDOT). 1980. Guidelines for Considering Noise in Land Use Planning and Control, Federal Interagency Committee on Urban Noise. June 1980.
USDOT 1999	USDOT. 1999. An Assessment of the U.S. Marine Transportation System, A Report To Congress. Available online: <*http://www.marad.dot.gov/publications/MTSreport/*>.
USEPA 1978	U.S. Environmental Protection Agency (USEPA). 1978. Protective Noise Levels: Condensed Version of EPA Levels Document. EPA-550/9-79-100. Springfield, VA. National Technical Information Service.
USEPA 1999	USEPA. 1999. USEPA – AirData Net Tier Report. Available online: <*http://www.epa.gov/air/data/nettier.html*>. Accessed August 13, 2004.
USEPA 2001	USEPA. 2001. National Coastal Condition Report. EPA-620/R-01/005. Washington, D.C.: Office of Research and Development/Office of Water. September 2001. Available online <*http://www.epa.gov/owow/oceans/NCCR/index*>. Accessed August 2003.
USFWS 2000	U.S. Fish and Wildlife Service. 2000. News release "Service Designates Critical Habitat for Endangered san Diego Fairy Shrimp. Available online: <*http://www.r1.fws.gov/news/2000/2000-173.htm*>. Accessed October 2004.
USN 2000	U.S. Navy (USN). 2000. Marine Environmental Update. USFWS Designates Coastal Sage Scrub as Critical Habitat for the California Gnatcatcher. Available online: <*http://meso.spawar.navy.mil/Newsltr/Fy00/No_2/gnatcatcher.html*>. Accessed October 2004.
USN 2001	U.S. Navy (USN). 2001. Final Overseas Environmental Impact Statement and Environmental Impact Statement for Surveillance Towed Array Sensor System Low Frequency Active (SURTASS LFA) Sonar. 2001.
USN 2002	USN. 2002. Environmental Assessment for Installation and Operation of an Underwater Swimmer Detection System at Naval Base Coronado, California. Commander, Navy Region Southwest, San Diego, CA.
USN undated	USN. Undated. "SURTASS LFA, Terminology." Available online: <*http://www.surtass-lfa-eis.com/Terms/*>. Accessed November 18, 2003.

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APPENDIX A

INTERESTED PARTY LETTER, MAILING LIST, NEWSPAPER ANNOUNCEMENT, AND SUPPLEMENT

MSST 91107 – SAN DIEGO, CALIFORNIA
INTERESTED PARTY MAILING LIST
AUGUST 17, 2004

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Arlington, VA 22203

Head, Environmental Planning & NEPA Compliance
Office of Chief of Naval Operations/N456
Dept. of the Navy, US Dept. of Defense
Crystal Plaza 5, Room 680
2211 S. Clark Place
Arlington, VA 22202-3735

Mr. Daniel Abeyta
State Historic Preservation Officer
Office of Historic Preservation
Department of Parks and Recreation
P.O. Box 942896
Sacremento, CA 94296-0001

Ms. Terry Roberts
Chief, California State Clearinghouse Governor's Office
of Planning and Research P.O. Box 3044
Sacramento, CA 95812-3044

Mark Bagdovitz
Chief, Habitat Conservation and Forest Resources
Eastside Federal Complex
911 N.E. 11th Ave
Portland, OR 97232-4181

Mr. Wayne Nastri
Regional Administrator
U.S. Environmental Protection Agency Region 9
75 Hawthorne Street
San Francisco, CA, 94105

Enrique Manzanilla, Director
Cross-Media Division
U.S. EPA Region 9
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Regional Administrator
National Marine Fisheries Service Southwest Region
501 West Ocean Blvd., Suite 4200
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Dave Allen
Regional Director
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Portland, OR 97232

Mr. Jeff Griffin
Regional Director
Federal Emergency Management Agency Region 9
1111 Broadway, Suite 1200
Oakland, CA 94607

California Governor's Office of Emergency Services
P.O. Box 419047
Rancho Cordova, CA 95741-9047

CWO Norm Smith
Maritime Safety & Security Team 91109
U.S. Marine Corp Recruit Depot
Building 310
San Diego, CA 92140

The Honorable Barbara Boxer
U.S. Senator
112 Hart Senate Office Building
Washington DC 20510

The Honorable Dianne Feinstein
U.S. Senator
331 Hart Senate Office Building
Washington DC 20510

The Honorable Susan A. Davis
Representative
1224 Longworth House Office Building
Washington, D.C. 20515

The Honorable Duncan Hunter
Representative
2265 Rayburn House Office Bldg.
Washington, D.C. 20515

The Honorable Randy Cunningham
Representative
2350 Rayburn House Office Building
Washington, DC 20515

Governor Arnold Schwarzenegger
State Capitol Building
Sacramento, CA 95814

Mr. Milford Wayne Donaldson, SHPO
Office of Historic Preservation, Department of Parks & Recreation
P.O. Box 942896
Sacramento, CA 94296-0001

California Coastal Commission
45 Fremont St, Suite 2000
San Francisco, CA 94105

Cal/EPA
1001 I Street
P.O. Box 2815
Sacramento, CA

Mr. Ryan Broddrick, Director
DFG Headquarters
1416 Ninth Street
Sacramento, California 95814

Department. of Parks and Recreation
1416 9th Street
Sacramento, CA 95814

Department of Water Resources
P. O. Box 942836,
Sacramento, CA 94236

San Diego Association of Governments
401 B Street, Suite 800
San Diego, CA 92101

Mayor Dick Murphy
202 "C" Street, 11th floor
San Diego, CA 92101

Mr. P. Lamont Ewell
202 “C” Street, MS 9A
San Diego, CA 92101

Environmental Services Division
9601 Ridgehaven Court
San Diego, CA 92123-1636

Chief Jeff Bowman
San Diego Fire-Rescue Department
Administrative Office/General Information
1010 2nd Avenue, Suite 400
San Diego, CA 92101

Chief William Lansdowne
Headquarters
1401 Broadway
San Diego, CA 92101-5729

Gail Goldberg, Planning Director
Planning Department
202 C Street, MS 5A
San Diego, CA 92101

Supervisor Dianne Jacob
County Administration Center
1600 Pacific Highway
San Diego, CA 92101

Mr. Robert R. Cooper, General Manager/Deputy Chief
Land Use and Environment Group
1600 Pacific Highway
Room 212, Mail Stop 6A
San Diego, CA 92101

Mr. Mark McPherson, Division Chief
Department of Environmental Health
Land and Water Quality Management Division
P.O. Box 129261
San Diego, CA 92122-9261

Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, CA 92123

Mr. Virgil Townsend
Superintendent, Southern California Agency
Bureau of Indian Affairs
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Riverside, CA 92507-0001

Barona Group of the Barona Reservation
1095 Barona Road
Lakeside, CA 92220-2633

Campo Band of Kumeyaay Indians
36190 Church Road
Campo, CA 91906

Capitan Grande Band of Mission Indians
Alpine, CA 92001

Cuyapaipe Band of Mission Indians
4054 Willows Road
Alpine, CA 91902

Mr. Ronald Jaeger
Regional Director Pacific Regional Office
Bureau of Indian Affairs
2800 Cottage Way
Sacramento, CA 95825
VADM Terry M. Cross
Commander, Pacific Area
U.S. Coast Guard
Coast Guard Island
Alameda, CA 94501-5100

RADM Kevin J Eldridge
Commander, 11th District
Coast Guard Island
Alameda, CA 94501-5100

Dave Stalters
Chief, Environmental Division
USCG (Civil Engineering Unit Oakland)
2000 Embarcadero, Suite 200
Oakland, CA 94606

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U.S. Department of Homeland Security
United States Coast Guard

Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-OT
Phone: (202) 267-1162
Fax: (202) 267-1171

16475

Dear Interested Party:

The United States Coast Guard (USCG) is announcing its intent to prepare an Environmental Assessment (EA) for the stand-up and operations of a Maritime Safety and Security Team (MSST) at San Diego, CA. Preparation of the EA is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations (Title 40 Code of Federal Regulations, Part 1500), Department of Transportation (DOT) Order 5610.1C and USCG policy (Commandant's Instruction M16475.1D, *NEPA Implementing Procedures and Policy for Considering Environmental Impacts*).

The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Marine Transportation System from illegal activity, sabotage, and other subversive acts, including terrorism. While the MSST's operations will closely parallel USCG traditional port security operations, they also will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports. The MSST would consist of 76 active duty personnel, six new Response Boats-Small (RB-S), trailers, support trucks, and passenger vans. It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios. RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of San Diego and coastal waters between the U.S./Mexico border and Dana Point (see enclosure); however, the MSST may be deployed to other ports or harbors to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is a brief description of the Proposed Action (including a figure showing the location). Public input is important to the preparation of the EA. Your concerns and comments regarding the stand-up and operations of the MSST and the possible environmental impacts are important to the USCG. You are invited to submit comments by August 30, 2004 using only one of the following means:

By mail to:

Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin

Or by fax to LT Ty Nagie at (202) 267-1171 (MSST)
Or by E-mail to tnagie@comdt.uscg.mil (MSST)

In choosing from these options, please give due regard to the continuing difficulties and delays associated with delivery of mail through the U.S. Postal Service to federal facilities. Written comments should include your name and address. The USCG will consider all comments received by the close of business on August 30, 2004 in the development and completion of the EA.

Sincerely,

S. D. AUSTIN
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures: (1) Supplemental Information
(2) ROI map

FACT SHEET

Environmental Assessment (EA) of the Stand-Up and Operations of a Maritime Safety & Security Team (MSST) at San Diego, CA

Background

On November 25, 2002, the President signed into law the Homeland Security Act of 2002, P.L. 107-296, which created the new Department of Homeland Security (DHS). Under this legislation, the U.S. Coast Guard (USCG) was transferred from the Department of Transportation (DOT) to the DHS. In the wake of the events of September 11, 2001, emerging threats to the U.S. homeland have prompted an increased USCG focus on protecting domestic ports and the U.S. Marine Transportation System from warfare and terrorist threats.

To meet its increasing mission needs and challenges, the USCG is establishing Maritime Safety and Security Teams (MSSTs). MSSTs are specifically organized, trained, and equipped to counter current and emerging threats to our nation's seaports. The MSST would normally conduct operations in protected waters such as a harbor or port. Our seaports are a vital hub and central to our nation's defense and economic security. Considerable critical infrastructure, and thousands of commercial and military ships located in our seaports move over 90 percent of American's foreign trade and military cargo to overseas locations. The MSST would provide a dedicated force focused on mastering the advanced tactics, techniques, and procedures associated with port security and defense missions in ports that are also engaged in legitimate commercial and recreational activities. They would operate with, and be supported by, both military and civilian government organizations, commercial, and non-governmental entities. The MSST would be transportable via land transportation, USCG cutter, and USCG or other military aircraft worldwide. In summary, the MSST would:

- Augment a USCG Group or the Captain of the Port (COTP) as a force multiplier; enhancing port safety and security, and law enforcement capabilities at economic or military significant ports.
- Deploy for specific episodic events that require an increased security posture for a limited duration. Transport all equipment and material via aircraft or ground or cutter transportation.
- Exercise security contingency plans in major ports.
- Detachments may also augment COTPs to conduct Port State Control Boardings and deploy for port familiarization and training.

The USCG is preparing an Environmental Assessment (EA) to comply with the National Environmental Policy Act (NEPA), and other related environmental laws, regulations, and Executive Orders.

Maritime Safety and Security Teams

The stand-up (establishment and operations) of the MSST at San Diego, California, would consist of 76 active duty personnel (these would consist of mostly reassigned personnel although there may be some new personnel), interior modifications to existing buildings at the Marine Corps Recruit Depot-San Diego, six Response Boats-Small (RB-Ss), trailers, eight pickup trucks, and three passenger vans.

RB-Ss are 25-foot boats with outboard engines. They are highly maneuverable, capable of quickly reaching and sustaining high speeds (in excess of 40 knots), and can carry three crewmembers, plus an additional seven passengers. The RB-Ss are equipped with radar, differential Global Positioning System (DGPS), and defensive weaponry. The MSST would also include boat trailers, four Ford F-350 pickup trucks, four Ford F-550 stakebed trucks, and three 15-passenger vans. When not in use, RB-Ss would be located on trailers at its on-shore support facility.

The MSST would be capable of operating 24 hours per day, seven days per week. However, it is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time.

The Region of Influence (ROI) for the MSST, presented in Attachment 1, is defined as the area where the MSST would typically conduct its operations. Under normal circumstances, the ROI is the Port of San Diego and coastal waters between the U.S./Mexico border and Dana Point. However, the MSST could be deployed to other ports or harbors. The MSST would launch the RB-Ss from public boat ramps at the Marine Corps Recruit Depot Marina, Shelter Island, National City, Chula Vista, or Mission Bay. The ROI is expected to be limited to existing harbor infrastructure and adjacent waters within the MSSTs primary operating area.

On-shore MSST Support Facilities

Each MSST would be located at or near an existing USCG Group in the vicinity of a regionally significant economic or military port. Co-locating the MSST with or near existing USCG Groups maximizes the use of existing infrastructure (i.e., electric, water and communications) and already assigned personnel. The criteria used to select these ports and the priority in which the MSST are stood up is based on a number of factors, including, but not limited to, the level of current protection, the amount and type of cargo and the concentration of critical Department of Defense facilities.

The San Diego MSST would be homeported at the Marine Corps Recruit Depot, Buildings 239 and 310, San Diego, CA 92140 (Attachment 2). Establishment of the MSST would involve only interior modifications to existing buildings.

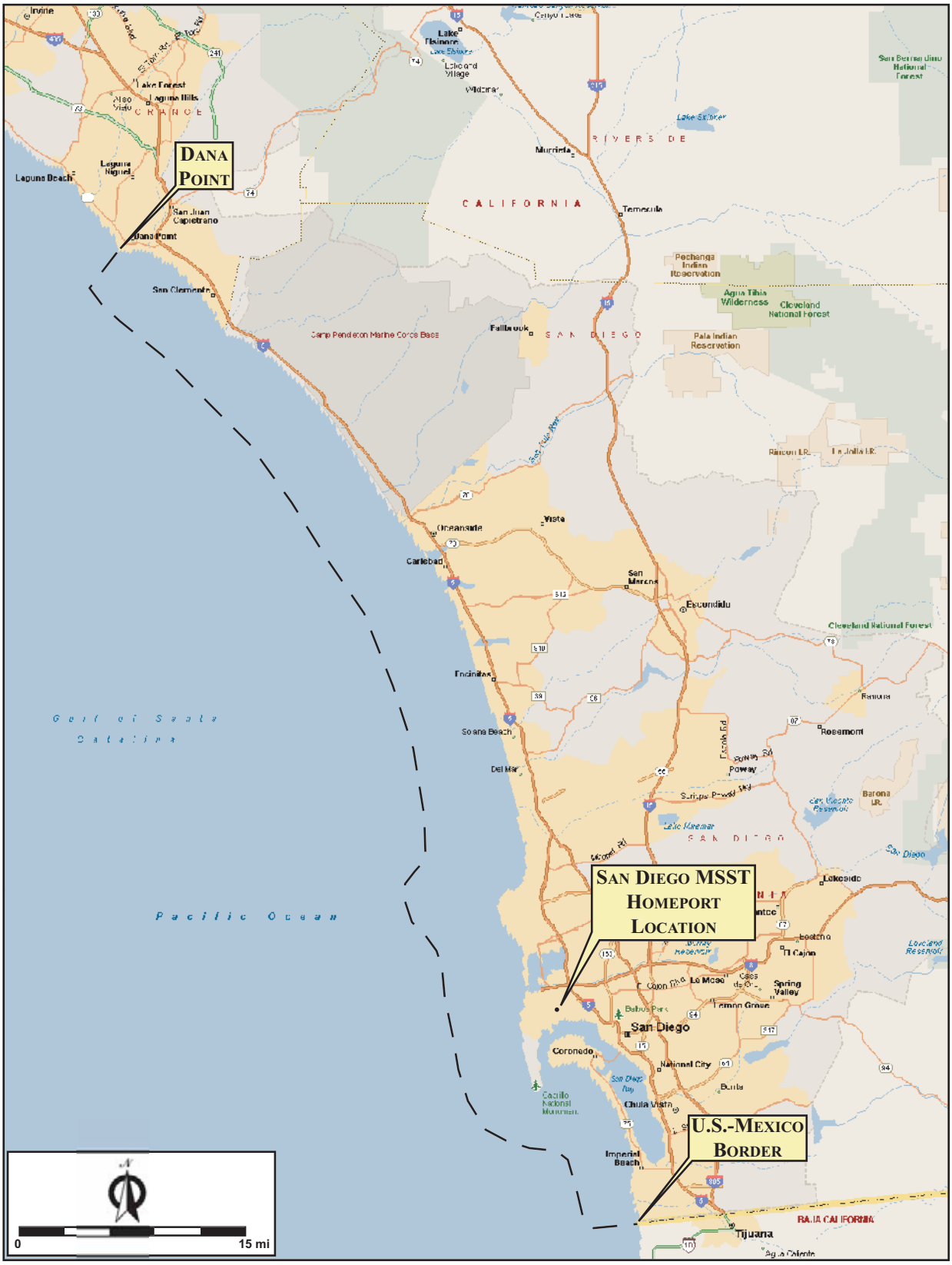

Figure 1. San Diego MSST ROI

PUBLIC NOTICE

Environmental Assessment for Maritime Safety Security Team (MSST) US Coast Guard

The United States Coast Guard (USCG) is announcing its intent to prepare an Environmental Assessment (EA) for the establishment of a Maritime Safety and Security Team in San Diego, CA. Preparation of the EA is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations at 40 Code of Federal Regulations, Part 1500. The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Maritime Transportation System from illegal activity, sabotage, and other subversive acts including terrorism. The MSST would allow the USCG to perform all of its missions, especially the newly acquired homeland security missions.

The EA will address the overall environmental impacts of establishing and operating the San Diego MSST, including interior modifications to existing buildings at the Marine Corps Recruit Depot-San Diego and the operation of 6 new Response Boats-Small (RB-S). The RB-Ss and personnel would be homeported at the Marine Corps Recruit Depot, Building 310, San Diego, CA 92140). The RB-S would operate in the Port of San Diego and coastal waters between the U.S./Mexico border and Dana Point. Public input is important in the preparation of this EA. Your concerns and comments regarding the implementation of this MSST and the possible environmental impacts are important to the USCG. You are invited to submit comments by September 30, 2004 using only one of the following options:

(1) By mail to: Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Capt S. D. Austin

(2) Or, by fax to LT Ty Nagie at (202) 267-1171

(3) Or by E-mail to tnagie@comdt.uscg.mil.

In choosing among the above means for submitting your comments, please give due regard to the recent difficulties and delays associated with delivery of mail through the U.S. Postal Service to Federal facilities.

Written comments should include your name, address, and the specific port(s) to which the comment relates. The USCG will consider all comments received by September 30, 2004 in the development and completion of this EA.

APPENDIX B

AGENCY CONSULTATION LETTERS

U.S. Department of Homeland Security
United States Coast Guard

Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-OPD
Phone: (202) 267-2039
Fax: (202) 267-4278

16475

Ms. Wendi Weber, Chief
Division of Endangered Species
U.S. Fish and Wildlife Service
Pacific Region
911 N.E. 11th Avenue
Portland, OR 97232-4181

Subject: Environmental Assessment of the Establishment and Operation of a Maritime Safety and Security Team in San Diego, CA

Dear Ms. Weber:

The U.S. Coast Guard (USCG) is preparing an Environmental Assessment (EA) for the establishment and operation of a Maritime Safety and Security Team (MSST) in San Diego, CA. Preparation of the EA is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations, Title 40 Code of Federal Regulations, Part 1500. The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Marine Transportation System from illegal activity, sabotage, and other subversive acts including terrorism. While the MSST's operations will closely parallel USCG traditional port security operations, it also will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports.

The EA will address the overall environmental impacts of establishing and operating the MSST including the implementation of shore side infrastructure support to accommodate 76 active duty personnel and MSST equipment in San Diego, CA. MSST equipment would include six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios.

RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of San Diego, and coastal waters between the U.S./Mexico border and Dana Point (see enclosure); however, the MSST may be deployed to other ports or harbors to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is a brief description of the Proposed Action (including a figure showing the location). In accordance with Section 7 of the Endangered Species Act, as amended, we seek to informally consult with the U.S. Fish and Wildlife Service regarding the proposed establishment and operation of the MSST in San Diego, CA. We intend to have the EA stand as our Biological Assessment (BA) for this proposal. In order to fully assess the potential impacts associated with the Proposed Action on protected resources, we are requesting

a list of endangered, threatened or candidate species or their habitat that occur within the ROI, and any additional concerns that the U.S. Fish and Wildlife Service may have regarding the potential impacts of the Proposed Action on federally listed species or other marine mammals.

We will also consult with National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries), Protected Resources Division regarding the presence of species of concern under their jurisdiction and NOAA Fisheries, Habitat Conservation Division regarding essential fish habitat within the ROI.

We look forward to working with your office on this project. Please send any comments/correspondence to the USCG through one of the following methods:

(1) By mail to:
Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin
(2) Or, by fax to LT Ty Nagie at (202) 267-1171 (MSST)
(3) Or by E-mail to tnagie@comdt.uscg.mil (MSST)

Thank you for your assistance. If you have questions about the proposed establishment of the MSST, please contact LT Ty Nagie at (202) 267-6064, or about the EA, please contact Ms. Kebby Kelley at (202) 267-6034.

Sincerely,

S. D. Austin
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures: (1) Supplemental Information
(2) ROI map

cc w/enclosures: Ken Hollingshead

U.S. Department of Homeland Security
United States Coast Guard

Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-OT
Phone: (202) 267-1162
Fax: (202) 267-1171

16475

Federal Consistency Coordinator
California Coastal Commission
45 Fremont St, Suite 2000
San Francisco, CA 94105

Subject: Environmental Assessment of the Establishment and Operation of a Maritime Safety and Security Team in San Diego, CA

Dear Federal Consistency Coordinator:

The U.S. Coast Guard (USCG) is preparing an Environmental Assessment (EA) for the establishment and operation of a Maritime Safety and Security Team (MSST) San Diego, CA. Preparation of the EA is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations, Title 40 Code of Federal Regulations, Part 1500. The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Marine Transportation System from illegal activity, sabotage, and other subversive acts including terrorism. While the MSST's operations will closely parallel USCG traditional port security operations, it also will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports.

The EA will address the overall environmental impacts of establishing and operating the MSST including the implementation of shore side infrastructure support to accommodate 76 active duty personnel and MSST equipment in San Diego, CA. MSST equipment would include six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios.

RB-Ss are 25-foot boats with outboard engines. The RB-S can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of San Diego, and coastal waters between the U.S./Mexico border and Dana Point (see enclosure); however, the MSST may be deployed to other ports or harbors to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is the USCG's Consistency Determination under the Coastal Zone Management Act (CZMA) Section 307(c)(1) and Title 15 Code of Federal Regulations (CFR) Part 930, subpart C, for the Proposed Action. We believe that the Proposed Action is consistent to the maximum extent practicable with the enforceable policies of the California Coastal Zone Management Program. As stated above, we are currently preparing an EA, and we intend to fully assess the potential impacts associated with the Proposed Action on environmental resources within the region of influence (ROI). Your concerns and comments regarding the

implementation of the MSST and its possible impacts particularly in coastal zones are important to the USCG.

We look forward to working with your office on this project. Please send any comments/correspondence to the USCG through one of the following methods:

(1) By mail to:
Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin

(2) Or, by fax to LT Ty Nagie at (202) 267-1171 (MSST)
(3) Or by E-mailto tnagie@comdt.uscg.mil (MSST)

Thank you for your assistance. If you have questions about the proposed establishment of the MSST, please contact LT Ty Nagie at (202) 267-6064, or about the EA, please contact Ms. Kebby Kelley at (202) 267-6034.

Sincerely,

S. D. Austin
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures: (1) Consistency Determination
(2) Supplemental Information
(3) ROI map

USCG COASTAL ZONE MANAGEMENT ACT (CZMA)
CONSISTENCY DETERMINATION

This document provides the California Coastal Commission (Commission) with the United States Coast Guard's (USCG) Consistency Determination under CZMA Section 307(c)(1) and 15 CFR Part 930, subpart C, for the standup and operation of the Maritime Safety and Security Team (MSST) in San Diego, CA.

Necessary Data and Information:

1. The U.S. Coast Guard (USCG) is preparing an Environmental Assessment (EA) for the establishment and operation of a Maritime Safety and Security Team (MSST) in San Diego, CA. Preparation of the EA is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations, 40 Code of Federal Regulations, Part 1500. The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Marine Transportation System from illegal activity, sabotage, and other subversive acts including terrorism. While the MSST's operations will closely parallel USCG traditional port security operations, it also will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports.

Enclosed for your review is a Fact Sheet on the EA (including a figure showing the location). The EA will address the overall environmental impacts of establishing and operating the MSST, including onshore facilities and infrastructure to accommodate 76 active duty personnel, MSST equipment, and the operation of six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any given period, although all six may be necessary under specific threat scenarios.

RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with RADAR, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of San Diego, from the U.S.-Mexico border north to Dana Point; however, the MSST may be deployed to other ports and harbors throughout the Pacific region to provide additional protection for specific targets.

2. Under the California Coastal Act of 1976 (Public Resources Code, Division 20, Section 30330), the Commission is "designated as the state coastal zone planning and management agency for any and all purposes, and may exercise any and all powers set forth in the Federal Coastal Zone Management Act of 1972 (16 U.S.C. 1451, et seq.). Therefore, all activities authorized, funded or carried out by the Federal Government that affect coastal zone resources must be reviewed by the Commission for consistency with the federally approved California Coastal Management Program and the California Coastal Act. The EA will assess the impacts of the Proposed Action on coastal resources that are provided under the California Coastal Act, Chapter 3, Coastal Resources Planning and Management Policies. The draft EA will be provided to you once it is available.

3. However, at this time no significant impacts on California's coastal resources are anticipated. The Proposed Action is consistent with enforceable policies regarding the marine environment, particularly Article 4, Section 30230, which states that "marine resources shall be maintained" and that "uses of the marine environment should be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms."

The Proposed Action, which provides enhanced port security, is also consistent with policies pertaining to development and public access (Article 2, Section 30210) in that it is a water-dependent use that protects public safety while preserving "maximum access…and recreational opportunities…for all the people."

Based upon the preceding information, data and analysis, the Coast Guard finds that the establishment and operation of MSST San Diego is consistent to the maximum extent practicable with the enforceable policies of the California Coastal Management Program.

Pursuant to 15 CFR Section 930.41, the California Coastal Management Program has sixty days from the receipt of this letter and accompanying information in which to concur with or object to this U.S. Coast Guard's Consistency Determination, or to request an extension 930.41(b). The State's concurrence will be presumed if the State's response is not received by the Coast Guard on the 60th day from receipt of this Determination. The State's response should be sent to:

LT Ty Nagie
Headquarters, United States Coast Guard
Commandant (G-OPD)
2100 Second Street, SW
Washington, DC 20593-0001

Telephone: (202) 267-6064; fax (202) 267-1171

U.S. Department of Homeland Security
United States Coast Guard

Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-OT
Phone: (202) 267-1162
Fax: (202) 267-1171

16475

Mr. Mark Helvey
F/SWR4
NMFS Southwest Regional Habitat Conservation Division
501 W. Ocean Blvd., Suite 4200
Long Beach, CA 90802-4213

Subject: Environmental Assessment of the Establishment and Operation of a Maritime Safety and Security Team in San Diego, CA

Dear Mr. Helvey:

The U.S. Coast Guard (USCG) is preparing an Environmental Assessment (EA) for the establishment and operation of a Maritime Safety and Security Team (MSST) in San Diego, CA. Preparation of the EA is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations, Title 40 Code of Federal Regulations, Part 1500. The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Marine Transportation System from illegal activity, sabotage, and other subversive acts including terrorism. While the MSST's operations will closely parallel USCG traditional port security operations, it also will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports.

The EA will address the overall environmental impacts of establishing and operating the MSST including the implementation of shore side infrastructure support to accommodate 76 active duty personnel and MSST equipment in San Diego, CA. MSST equipment would include six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios.

RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of San Diego, and coastal waters between the U.S./Mexico border and Dana Point (see enclosure); however, the MSST may be deployed to other ports or harbors to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is a brief description of the Proposed Action (including a figure showing the location). We do not believe that the Proposed Action, the establishment and operations of the MSST in San Diego would have an adverse impact on essential fish habitat. As such, and in accordance with Section 305(b) of the Magnuson-Stevens Act, as amended, we do

not believe an EFH consultation is required at this time. As stated above, we are currently preparing an EA, and we intend to fully assess the potential impacts associated with the Proposed Action on EFH within the region of influence (ROI). Your concerns and comments regarding the implementation of the MSST and its possible impacts on EFH are important to the USCG.

We will also consult with the U.S. Fish and Wildlife Service and NOAA Fisheries Protected Resources Division regarding the presence of threatened and endangered species under their respective jurisdictions.

We look forward to working with your office on this project. Please send any comments/correspondence to the USCG through one of the following methods:

(1) By mail to:
Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin
(2) Or, by fax to LT Ty Nagie at (202) 267-1171 (MSST)
(3) Or by E-mail to tnagie@comdt.uscg.mil (MSST)

Thank you for your assistance. If you have questions about the proposed establishment of the MSST, please contact LT Ty Nagie, or about the EA, please contact Ms. Kebby Kelley at (202) 267-6034.

Sincerely,

S. D. Austin
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures: (1) Supplemental Information
(2) ROI map

U.S. Department of Homeland Security
United States Coast Guard

Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-OT
Phone: (202) 267-1162
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16475

Mr. Daniel Abeyta
State Historic Preservation Officer
Office of Historic Preservation
Department of Parks and Recreation
P.O. Box 942896
Sacremento, CA 94296-0001

RE: Finding of No Historic Properties Affected for Establishing a US Coast Guard Maritime Safety and Security Team (MSST) in San Diego, CA

Dear Mr. Abeyta:

The U.S. Coast Guard (USCG) is preparing an Environmental Assessment (EA) for the establishment and operation of a Maritime Safety and Security Team (MSST) operating out of San Diego, CA. This undertaking is subject to Section 106 of the National Historic Preservation Act, as amended in 1992 (16 USC 470 *et seq*.). This letter is to fulfill the USCG's obligation under Section 106 by providing the information required for Title 36 Code of Federal Regulations (CFR) Part 800.11 to make a determination under 800.4(d)(1), *Finding of No Historic Properties Affected.*

The EA will address the overall environmental impacts of establishing and operating the MSST including the implementation of shore side infrastructure support to accommodate 76 active duty personnel and MSST equipment in San Diego, CA. MSST equipment would include six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios.

The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Marine Transportation System from illegal activity, sabotage, and other subversive acts, including terrorism. While the MSST's operations would closely parallel USCG traditional port security operations, they also would provide complementary, non-redundant capabilities that would be able to close significant readiness gaps in our nation's strategic ports. RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of San Diego, and coastal waters between the U.S./Mexico border and Dana Point (see enclosure); however, the MSST may be deployed to other ports or harbors to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is a brief description of the Proposed Action (including a figure showing the location). The Proposed Action is not expected to affect any historic properties.

Please provide comments on our determination of no historic properties affected. If your comment indicates a difference of opinion on this determination, please feel free to contact Ms. Kobby Kelley at 202-267-6034 in order to continue consultation and hopefully resolve the difference of opinion. Please provide your comments within 15 days from the date your office receives this letter.

Thank you in advance.

Sincerely,

S. D. Austin
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures: (1) Supplemental Information
(2) ROI map

U.S. Department of Homeland Security
United States Coast Guard

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16475

Mr. James Lecky
Assistant Regional Administrator for Protected Resources
Protected Resources Division
U.S. Department of Commerce
NOAA Fisheries, Southwest Region
777 Sonoma Avenue
Room 325
Santa Rosa Ca 95404

Subject: Environmental Assessment of the Establishment and Operation of a Maritime Safety and Security Team San Diego, CA

Dear Mr. Lecky:

The U.S. Coast Guard (USCG) is preparing an Environmental Assessment (EA) for the establishment and operation of a Maritime Safety and Security Team (MSST) in San Diego, CA. Preparation of the EA is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[C] and its implementing regulations, Title 40 Code of Federal Regulations, Part 1500. The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Marine Transportation System from illegal activity, sabotage, and other subversive acts including terrorism. While the MSST's operations will closely parallel USCG traditional port security operations, it also will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports.

The EA will address the overall environmental impacts of establishing and operating the MSST including the implementation of shore side infrastructure support to accommodate 76 active duty personnel and MSST equipment in San Diego, CA. MSST equipment would include six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios.

RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of Honolulu (see enclosure); however, the MSST may be deployed to other ports or harbors throughout the Hawaiian Islands and Guam to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is a brief description of the Proposed Action (including a figure showing the location). In accordance with Section 7 of the Endangered Species Act, as amended, we seek to informally consult with NOAA Fisheries regarding the proposed establishment and operation of the MSST in San Diego. We intend to have the EA stand as our

Biological Assessment (BA) for this proposal. In order to fully assess the potential impacts associated with the Proposed Action on protected resources, we are requesting a list of species of concern that occur within the ROI and a list of any additional concerns that NOAA Fisheries may have regarding the potential impacts of the Proposed Action on federally listed species or other marine mammals.

We will also consult with the U.S. Fish and Wildlife Service regarding the presence of threatened and endangered species under their jurisdiction and NOAA Fisheries' Habitat Conservation Division regarding essential fish habitat within the ROI.

We look forward to working with your office on this project. Please send any comments/correspondence to the USCG through one of the following methods:

(1) By mail to:
Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin

(2) Or, by fax to LT Ty Nagie at (202) 267-1171 (MSST)
(3) Or by E-mail to tnagie@mdt.uscg.mil (MSST)

Thank you for your assistance. If you have questions about the proposed establishment of the MSST, please contact LT Ty Nagie at (202) 267-6064, or about the EA, please contact Ms. Kobby Kelley at (202) 267-6034.

Sincerely,

S. D. Austin
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures: (1) Supplemental Information
(2) ROI map

APPENDIX C

ENVIRONMENTAL REGULATIONS, LAWS AND EXECUTIVE ORDERS

Table C-1. Applicable Regulations, Laws, and Executive Orders

Executive Orders	
Executive Order (EO) 11593, Protection and Enhancement of the Cultural Environment	All Federal agencies are required to locate, identify, and record all cultural and natural resources. Cultural resources include sites of archaeological, historical, or architectural significance. Natural resources include the presence of endangered species, critical habitat, and areas of special biological significance.
EO 11990, Protection of Wetlands	Requires Federal agencies to avoid undertaking or providing assistance for new construction located in wetlands unless there is no practicable alternative, and all practicable measures to minimize harm to wetlands has been implemented.
EO 11988, Floodplain Management	Provides direction regarding actions of Federal agencies in floodplains, and requires permits from state and Federal review agencies for any construction within a 100-year floodplain.
EO 12372, Intergovernmental Review of Federal Programs (as amended by EO 12416)	Requires Federal agencies to consult with state and local governments when proposed Federal financial assistance or direct Federal development has an impact on interstate metropolitan urban centers or other interstate areas.
EO 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements	Requires Federal agencies to plan for chemical emergencies. Facilities that store, use, or release certain chemicals are subject to various reporting requirements. Reported information is made available to the public.
EO 12898, Environmental Justice	Requires certain Federal agencies, including the Department of Defense (DoD), to the greatest extent practicable permitted by law, to make environmental justice part of their missions by identifying and addressing disproportionately high and adverse health or environmental effects on minority and low-income populations.
EO 13007, Indian Sacred Sites	Requires Federal agencies to accommodate access to, and ceremonial use of, sacred sites by practitioners and avoid adversely affecting the physical integrity of such sites.

Table C-1. Applicable Regulations, Laws, and Executive Orders (continued)

Executive Orders	
EO 13045, Protection of Children from Environmental Health and Safety Risks	Makes it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children. It also directs agencies to ensure that policies, programs, activities, and standards address such risks if identified.
EO 13158, Marine Protected Areas	Requires Federal agencies whose actions affect the natural and cultural resources protected by a marine protected area (MPA) to identify such actions, and, to the extent practicable and permitted by law, to avoid harming the natural and cultural resources that are protected by an MPA.
EO 13175, Consultation and Coordination with Indian Tribal Governments	Requires Federal agencies to have an accountable process to ensure meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.
EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds	Requires Federal agencies to take steps to protect migratory birds, including restoring and enhancing habitat, preventing or abating pollution affecting birds, and incorporating migratory bird conservation into agency planning processes whenever possible.
American Indian Religious Freedom Act, 42 United States Code (U.S.C.) 1996, Public Law (P.L). 95-341	Protects and preserves the rights of American Indians, Eskimos, Aleuts, and Native Hawaiians to exercise the traditional religions. These rights include, but are not limited to, access to sites, use and possession of sacred objects, and the freedom to worship through ceremony and tradition rites.
Antiquities Act of 1906, 16 U.S.C. 431-433, P.L. 59-209	Provides for the protection of historic and prehistoric ruins and objects of antiquity on lands owned or controlled by the Federal government. Authorizes scientific investigation of antiquities on Federal lands. Authorizes the establishment of national landmarks.
Archaeological and Historical Preservation Act, 16 U.S.C. 469	Protects and preserves historical and archaeological data. Requires Federal agencies to identify and recover data from archaeological sites threatened by their actions.

Table C-1. Applicable Regulations, Laws, and Executive Orders (continued)

Executive Orders	
Archaeological Resources Protection Act of 1979, 16 U.S.C. 470 et seq., P.L. 96-95	Enacted to preserve and protect resources and sites on Federal and Indian lands. Fosters cooperation between governmental authorities, professionals, and the public. Prohibits the removal, sale, receipt, and interstate transportation of archaeological resources obtained illegally from public or Indian lands.
Clean Air Act, 42 U.S.C. 7401-7671q, July 14, 1955, as amended	This Act, as amended, is known as the Clean Air Act (CAA) of 1970. The amendments made in 1970 established the core of the clean air program. The primary objective is to establish Federal standards for air pollutants. It is designed to improve air quality in areas of the country, which do not meet Federal standards and to prevent significant deterioration in areas where air quality exceeds those standards.
Coastal Zone Management Act of 1972, 16 U.S.C. 1451-1464, P.L. 92-583	Establishes a policy to preserve, protect, develop, and, where possible, restore and enhance the resources of the Nation's coastal zone. Encourages and assists states through the development and implementation of coastal zone management programs.
Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. 9601-9675, P.L. 96-510, amended by Superfund Amendments and Reauthorization Act of 1986 (SARA), P.L. 99-499	Also known as "Superfund," provides for liability, compensation, cleanup, and emergency response for hazardous substances released into the environment and cleanup of inactive hazardous substances disposal sites. Also established a fund financed by hazardous waste generators to support cleanup and response actions.
Department of Transportation Act, Section 4(f)	Requires the Department of Transportation (DOT) to avoid or mitigate impacts to public parks and wildlife areas when approving transportation programs or projects.
Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq., P.L. 93-205	Protects threatened, endangered, and candidate species of fish, wildlife, and plants and their designated critical habitats. Under this law, no Federal action is allowed to jeopardize the continued existence of an endangered or threatened species. The Endangered Species Act also requires consultation with USFWS and the National Marine Fisheries Service (NMFS) and the preparation of a biological assessment when such species are present in an area that is affected by government activities.
Federal Property and Administrative Services Act of 1949	Guides the process for transferring government property.

Table C-1. Applicable Regulations, Laws, and Executive Orders (continued)

Executive Orders	
Federal Records Act	Requires Federal agencies to preserve Federal records of potential historic value.
Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C. 1251-1387	The Clean Water Act is a comprehensive statute aimed at restoring and maintaining the chemical, physical, and biological integrity of the nation's waters. Primary authority for the implementation and enforcement rests with the U.S. Environmental Protection Agency (EPA).
Fish and Wildlife Conservation Act Coordination Act, 16 U.S.C. 661 et seq., P.L. Chapter 55	The purpose of this Act is to ensure that wildlife conservation receives equal consideration and be coordinated with other features of water-resources development programs.
Historic Sites Act of 1935, 16 U.S.C. 461-467, P.L. Chapter 593	Establishes a national policy to preserve for public use, historic sites, buildings, and objects of national significance.
Historical and Archaeological Data-Preservation, 16 U.S.C. 469 et seq., P.L. 93-291	Protects and preserves historical and archaeological data caused as a result of Federal construction projects. Directs Federal agencies to notify the Secretary of the Interior when the construction project may cause irreparable loss or destruction of significant resources or data. Provides a mechanism through which resources can be salvaged from a construction site.
Lacy Act of 1900, 16 U.S.C. 701, 702; 31 Stat. 187, 32 Stat. 285	Under this law, it is unlawful to import, export, sell, acquire, or purchase fish, wildlife, or plants taken, possessed, transported, or sold: 1) in violation of U.S. or Indian law, or 2) in interstate or foreign commerce involving any fish, wildlife, or plants taken, possessed, or sold in violation of state or foreign law.
Magnuson-Stevens Fishery Conservation and Management Act, as amended through October 11, 1996, 16 U.S.C. 1801 et seq., P.L. 94-265	Establishes regional fisheries councils that set fishing quotas and restrictions in U.S. waters. Federal agencies must consult with NMFS on all actions, authorized, funded, or undertaken by the agency that may adversely affect essential fish habitat (EFH)
Marine Mammal Protection Act of 1972, 16 U.S.C. 1361 et seq., 1401-1407, 1538, 4107	Establishes a moratorium on the taking and importation of marine mammals including harassment, hunting, capturing, collecting, or killing or attempting the above actions. Requires permits for taking marine mammals. Requires consultations with USFWS and NMFS if impacts to marine mammals are possible.

Table C-1. Applicable Regulations, Laws, and Executive Orders (continued)

Executive Orders	
Marine Protection, Research, and Sanctuaries Act of 1972, 33 U.S.C. 1401-1445, P.L.92-532	Regulates the dumping of materials into ocean waters. Provides for a permitting process to control the ocean dumping of dredged materials. Establishes the marine sanctuaries program.
Migratory Bird Treaty Act 16 U.S.C. 703-712	The Migratory Bird Treaty Act implements various treaties and is for the protection of migratory birds. Under the Act, taking, killing, or possessing migratory birds is unlawful.
National Environmental Policy Act of 1969 (NEPA), as amended; P.L. 91-190, 42 U.S.C. 4321 et seq.	Requires Federal agencies to utilize a systematic approach when assessing environmental impacts of government activities. NEPA proposes an interdisciplinary approach in a decision-making process designed to identify unacceptable or unnecessary impacts to the environment.
National Historic Preservation Act, 16 U.S.C. 470 et seq.	Requires Federal agencies to take account of the effect of any federally assisted undertaking or licensing on any district, site, building, structure, or object eligible or listed for inclusion in the NRHP. Provides for the nomination, identification (through listing on the National Register), and protection of historical and cultural properties of significance.
National Invasive Species Act of 1996, 16 U.S.C. 4701 et seq., P.L. 104-332	Reauthorizes and amends the Nonindigenous Aquatic Nuisance Prevention Control Act of 1990. Establishes ballast water information and requires guidelines to be issued for the Great Lakes.
Noise Control Act of 1972, 42 U.S.C. 4901-4918, P.L. 92-574	Establishes a national policy to promote an environment free from noise that jeopardizes their health and welfare. Authorizes the establishment of Federal noise emissions standards and provides information to the public.
Nonindigenous Aquatic Nuisance Prevention Control Act of 1990, 16 U.S.C. 4701 et seq., P.L. 101-646	Establishes aquatic nuisance species.
Northwest Atlantic Fisheries Convention Act	Implements provisions of international conventions and establishes regulatory framework.
Occupational Safety and Health Act	Establishes standards to protect workers, including standards on industrial safety, noise, and health standards.
Port and Waterways Safety Act	Sets vessel operating and towing safety requirements and sets out enforcement provisions.

Table C-1. Applicable Regulations, Laws, and Executive Orders (continued)

Executive Orders	
Resource Conservation and Recovery Act, 42 U.S.C. 6901, P.L. 94-580	Establishes requirements for safely managing and disposing of solid and hazardous waste and underground storage tanks. Federal agencies must comply with waste management requirements.

APPENDIX D

USCG PROTECTED LIVING MARINE RESOURCES GUIDANCE

U.S. Department of Transportation
United States Coast Guard

Commandant
United States Coast Guard

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16214
SEP 28 2000

LETTER OF PROMULGATION

From: Commandant
To: Distribution

1. Protecting our nation's natural resources is one of the Coast Guard's five strategic goals. Along with Maritime Safety, Maritime Security, Maritime Mobility, and National Defense, Protection of Natural Resources is one of the basic reasons the taxpayers fund the Coast Guard each year. Hence, it is one of the outcomes to which our entire organizational effort – programs, policies, and assets – should be dedicated. In our Strategic Plan 1999, I defined the Protection of Natural Resources Strategic Goals as "the elimination of environmental damage and natural resource degradation associated with all maritime activities." A vital aspect of achieving this goal is helping the nation recover and maintain healthy populations of marine protected species. OCEAN STEWARD is our strategic plan for making that happen.

2. OCEAN STEWARD provides the emphasis operational commanders, training commands, and administrative staffs need to prioritize and execute this increasingly important mission. The core idea behind OCEAN STEWARD is the premise that all of us, as members of the Coast Guard, have a responsibility to be good stewards of the ocean. If we adhere to this premise as individuals, then the Coast Guard, as an organization, will make great progress toward achieving OCEAN STEWARD's objectives.

3. As we enter the 21st century, our nation is becoming increasingly concerned about the ocean and the state of its living marine resources. Coast Guard leadership in protecting marine species, however, is nothing new; it dates back as far as the Fur Seal Act of 1897. The Coast Guard remains committed to continuing that tradition of leadership, and OCEAN STEWARD is your guide in this important endeavor.

JAMES M. LOY

Encl: (1) OCEAN STEWARD, Protected Living Marine Resources Strategic Plan

Dist: CG LANTAREA (A, Am, Ao), CG PACAREA (P, Pm, Po), CG DISTRICTS (d, m, o), CG ACADEMY, CG INSTITUTE, CG TRACEN Yorktown, CG TRACEN Cape May, CG TRACEN Petaluma, CG PACAREA TRATEAM, CG RFTC Cape Cod MA, CG RFTC Charleston SC, CG RFTC New Orleans LA, CG RFTC Kodiak AK, CG R&DC

COMMANDANT'S PREAMBLE

The Coast Guard's Strategic Plan 1999 states the nation's waterways and their ecosystems are vital to our economy and health. This is why we made the protection of natural resources, specifically the elimination of environmental damage and natural resource degradation associated with maritime activities, one of our five strategic goals, and made enforcing the federal regulations that result in all living marine resources achieving healthy, sustainable populations one of our performance goals. We already have formal plans in place to help us achieve some of these goals, particularly in the areas of pollution response and fisheries law enforcement. However, if we are to fully achieve our protection of natural resources strategic goal, we must become more involved in the efforts to recover and maintain our nation's marine protected species and the habitats on which they depend.

In recent years, there has been a dramatic increase in public and governmental concern about the state of our oceans and their living resources. Evidence of this includes:

- Increasing fishery management measures designed to reduce bycatch of non-targeted species, such as turtle excluder devices (TEDs), fixed-net pingers, and bycatch reduction devices (BRDs).
- Rising conflicts between advocates for species protection and resource users, such as those existing between Steller sea lion protection advocates and Bering Sea/Gulf of Alaska pollock fishers, and between northern right whale protection advocates and New England fixed gear fishers.
- The recent formation of federal and state government task forces to protect coral reefs, northern right whales, Pacific salmon, and other endangered species.
- National Marine Fisheries Service Report to Congress (1999) concluding, of the 230 stocks for which the status can be determined, 98 are overfished and five are approaching overfished - an increase from 86 overfished stocks in 1997 and 90 in 1998.
- Fisheries closures and restrictions in the Gulf of Maine and the West Coast that have had a devastating economic impact on groundfish fleets.
- Increasing litigation against government agencies (including the Coast Guard) by organizations trying to influence marine resource management policy.
- Funding for the Lands Legacy Initiative, which included $7 million to protect ocean and coastal resources in FY2000 and a request for $66 million for FY2001.
- The recent signing, by President Clinton, of Executive Order 13158, strengthening and expanding the nation's system of marine protected areas (MPAs).

The Coast Guard already has effective, coordinated strategies for enforcing our nation's fisheries management regulations, protecting the marine environment from oil pollution, and responding to maritime disasters. However, our approach to marine protected species (MPS), specifically those species and geographic areas that are protected under the Endangered Species Act, the Marine Mammal Protection Act, the National Marine Sanctuaries Act, or similar regulations or executive orders, is less clearly defined. Problems resulting from this include:

- Initial delay in establishing a coordinated plan for accomplishing assigned Atlantic Protected Living Marine Resources Initiative (APLMRI) tasks.

- Difficulty in addressing potential conflicts between high-speed craft and marine protected species in New England.
- Low funding priority for funding assessments to address the impact Coast Guard operations have on marine protected species throughout the Pacific Area.
- Inconsistency in handling cross-directorate MPS issues such as working with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) on marine mammal protection initiatives and responding to the Coral Reef Initiative (Executive Order 13089).
- Working level frustration with lack of guidance for dealing with endangered species lawsuits, creation of Memorandums of Understanding (MOU) with NMFS, potential regulation of high-speed craft and whale watch industry vessels, and other MPS issues.

A robust ocean environment is essential to our nation's prosperity, and healthy populations of marine protected species are essential to maintaining a robust ocean environment. Just as protecting our water and air became top national priorities during the last decades of the 20th century, protecting our oceans is becoming a top priority of the 21st century. In the coming years, the nation will look for leaders to exercise responsible stewardship of our ocean resources. The Coast Guard is stepping forward and embracing this role, it is one of the most important roles we will ever undertake.

OCEAN STEWARD PURPOSE

The purpose of Ocean Steward is to help the Coast Guard achieve its strategic goal Protection of Natural Resources and its performance goal of enforcing federal regulations that result in all living marine resources achieving healthy, sustainable populations. Ocean Steward provides a clearly defined strategy for our role in helping the nation recover and maintain healthy populations of marine protected species; it captures the things we are already doing and provides a comprehensive list of objectives we can achieve if we are provided the necessary resources. Ocean Steward complements our fisheries enforcement strategic plan, Ocean Guardian. Together, Ocean Steward and Ocean Guardian provide a roadmap for the Coast Guard's efforts in ensuring our nation's waterways and their ecosystems remain productive by protecting all our nation's living marine resources from degradation.

COAST GUARD STRATEGIC GOAL: PROTECTION OF NATURAL RESOURCES

Eliminate environmental damage and natural resource degradation associated with all maritime activities

The nation's waterways and their ecosystems are vital to our economy and health. If the United States is to enjoy a rich, diverse and sustainable ocean environment, then we must halt the degradation of our ocean's natural resources associated with maritime activities. This includes ensuring our country's marine protected species are provided the protection necessary to help their populations recover to healthy, sustainable levels. Providing adequate protection will require the United States to enact and enforce a wide range of regulations to govern marine resource management and use. Ocean Steward will enable the Coast Guard, as the nation's primary at sea law enforcement agency, to develop and enforce those regulations necessary to help recover and maintain our country's marine protected species. Moreover, Ocean Steward will ensure the Coast Guard is viewed as a leader in regional, national and international efforts to protect the nation's marine ecosystems.

OCEAN STEWARD VISION STATEMENT

The Coast Guard will be a leader in the effort to recover and maintain our nation's marine protected species

OCEAN STEWARD MISSION STATEMENT

We will enforce and comply with marine protected species regulations, work with other agencies and organizations to develop appropriate regulations for marine protected species recovery, and publicize our efforts to gain the support and resources necessary to fully implement Ocean Steward

The Coast Guard will implement a formal MPS strategy, Ocean Steward, with a clear, focused vision. We will educate and train our members to make certain every individual understands that stewardship of the ocean environment is a fundamental part of their duty. We will use existing enforcement authorities, and seek new authorities as necessary, to help reduce the risks of extinction and recover marine protected species populations. We will conduct our own operations so as to minimize our impact on marine protected species. We will assess the impact on marine protected species when developing both internal and external regulations and policies. We will work closely with other federal, state and local governments, as well as environmental and research organizations, to carry out the nation's MPS policies. We will inform the public of both the importance of the mission and the ways in which they can help lessen the impact of human activities on marine protected species. We will widely publicize our strategy and results to inform policymakers and the public of the value of our MPS efforts.

GUIDING PRINCIPLE

We are Stewards of the Ocean

The guiding principle behind Ocean Steward is instilling in every member of the Coast Guard the belief that each individual is a steward of the ocean. This concept must be promoted throughout the entire organization. Our training commands – Training Center Cape May, the Coast Guard Academy, Training Center Yorktown, Training Center Petaluma, and the Regional Fisheries Training Centers – should produce graduates who understand and believe preservation of marine protected species is a fundamental Coast Guard responsibility. Our boarding officers and marine inspectors should know, and want to know, what marine protected species exist in their AORs, the regulations that exist to protect them, and how his or her actions can promote species recovery. Our operations and marine safety units should know, and want to know, the concerns of federal, state and local officials, and should work cooperatively with them. Our stations, cutters and marine safety offices should distribute appropriate educational literature. At every opportunity Coast Guard personnel should let the public know we are on watch protecting their oceans and waterways, and inform them of what they can do to help eliminate the degradation of natural resources associated with maritime activities. Our deck watch officers, aircrews and coxswains should be able to recognize the marine protected species they are likely to

encounter and report sightings to interested organizations. Our staff officers and port operations personnel should ensure, and want to ensure, recovery of marine protected species is taken into account when making policy decisions, and they should prioritize the workloads of their personnel to reflect this emphasis. In short, every member of the Coast Guard must think of himself or herself as a steward of the ocean. Committing to that, both organizationally and individually, we will enable us to reach our overarching Protection of Natural Resources strategic goal.

OCEAN STEWARD STRATEGIES

Raise the Profile of the MPS Mission: We will raise the profile of the MPS mission to the status of missions such as maritime drug interdiction, marine pollution prevention and fisheries enforcement.

Obtain Necessary Resources and Authorities: We will prioritize existing resources, use existing authorities, and seek additional resources and authorities as necessary to implement Ocean Steward.

Partner with Other Agencies: We will work closely with other agencies and organizations involved in the preservation and recovery of marine protected species to eliminate redundancy, and provide a clear link between enforcement and management.

Publicize Our Efforts: We will stress the importance of the Coast Guard's role as part of a comprehensive management scheme and highlight our successful efforts to the public.

Each of these strategies contains sets of near, mid, and long-term objectives. Near-term objectives are those that can be achieved without a major reallocation of resources. Mid-term objectives require addition resources or a significant reallocation of resources. Long-term objectives are those objectives that will require institutional changes such as seeking additional authorities or creation of program offices.

STRATEGY: RAISE THE PROFILE OF THE MPS MISSION

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1. DISCUSSION

If the Coast Guard is to be truly committed to protecting the ocean and its resources, then, in the eyes of our own people, recovery of marine protected species must be just as important as traditional missions such as maritime drug interdiction, marine pollution prevention, and fisheries enforcement. We must go beyond development of single initiatives in response to pressure or crisis. We should approach MPS issues with the same proactive, integrated, long-term strategy we use for addressing counterdrug operations, fisheries law enforcement, and commercial vessel safety. Every member of the Coast Guard must know it is part of our job to help recover and maintain our marine

protected species, just as they know it is our job to rescue those in distress. If we understand this concept individually, we will certainly convey that image organizationally.

2. KEY OBJECTIVES

a. Near Term

1) Incorporate MPS issues into CG performance planning.	G-CCS
2) Develop Area and District MPS operating and enforcement guidance.	G-O/Areas/ Districts
3) Emphasize area specific MPS issues in the curriculum of all 5 Regional Fisheries Training Centers (RFTC).	G-O/G-W/ Areas/RFTCs
4) Identify ways to increase CG Auxiliary participation in MPS mission.	G-O
5) Identify ways to increase focus on MPS issues in Sea Partners program.	G-M
6) Measure the effectiveness of current MPS initiatives such as compliance with the Mandatory Ship Reporting System (MSR) and manatee speed zone regulations.	G-O
7) Designate MPS points of contact (POC) at HQ, Areas/Districts, and create a CG network for information flow on MPS issues.	G-O/Areas/ Districts

b. Mid Term

1) Increase Endangered Species Act/Marine Mammal Protection Act enforcement pulse ops during critical seasons.	G-O/Areas/ Districts
2) Ensure current and potential MPS missions (patrol of remote coral reefs, removal of derelict fishing gear, assisting in disentanglement of whales, etc.) are included in Deepwater decision making process.	G-O
3) Increase CG participation in environmental cleanup events such as the Center for Marine Conservation's annual International Coastal Clean Up.	G-M/G-O
4) Incorporate MPS mission into curriculum of all entry-level and accession training programs (e.g., Officer Candidate School, the Academy, Cape May, and Civilian Indoctrination).	G-W
5) Incorporate MPS issues into International Maritime Officers Course and Mobile Training Teams.	G-CI
6) Designate MPS POC at appropriate CG units.	Districts
7) Include MPS guidance in Maritime Law Enforcement Manual updates.	G-O
8) Include MPS guidance in Marine Safety Manual updates.	G-M

c. Long Term

1) Create HQ cross-directorate MPS office.	G-M/G-O
2) Incorporate MPS questions into Servicewide Examinations.	G-W
3) Add MPS material to appropriate A School curricula (e.g., BM, QM, and MST).	G-W
4) Add MPS material to appropriate C School curricula (e.g., Boarding Officer Course, Boarding Team Member Course, and Marine Safety Petty Officer Course).	G-W

STRATEGY: **OBTAIN NECESSARY RESOURCES AND AUTHORITIES**

---

1. DISCUSSION

As national sentiment builds for increasing the protection of our oceans, the Coast Guard should be at the top of the list of agencies that the public demands to be adequately funded. We should reinforce this by documenting our need for, and requesting, the additional resources required to meet the increasing enforcement and regulatory demands in the oceans environment. The public must view the Coast Guard as a leader in preserving our oceans and their protected species. When it is the right thing to do, we should seek to expand our enforcement and regulatory roles, and not shy away for fear of acquiring additional mandates or becoming the target of legal action. If we can be leaders in maritime search and rescue, drug interdiction and pollution prevention, then we can also become leaders in the recovery of marine protected species.

2. KEY OBJECTIVES

a. Near Term

1) Request funding for implementation of Ocean Steward through annual budgeting and resource allocation processes.	G-I/G-M/ G-O/G-
2) Include resource hour requests for implementation of Ocean Steward in input to the annual Operational Guidance letter.	G-O/Areas
3) Assess the need for more enforcement authority to protect resources of various marine protected areas and sanctuaries.	G-L/G-M/ G-O
4) Monitor and evaluate effectiveness of the Mandatory Ship Reporting System (MSR).	G-M/G-O
5) Monitor R&D efforts to develop new technologies for marine mammal detection and avoidance in order to plan for possible acquisition of feasible technologies.	G-O/G-S

b. Mid Term

1) Develop better measures of effectiveness for MPS enforcement efforts.	G-O
2) Support Resource Proposals that address requirements for MPS activities.	G-CCS
3) Allocate resources required to implement Ocean Steward in the annual Operational Guidance letter.	G-O
4) Propose statutory changes and new regulations to improve CG ability to support the nation's MPS objectives.	G-L/G-M/ G-O

c. Long term

1) Consider seeking expanded authority for regulation of vessels in order to protect marine protected species.	G-L/G-M/ G-O

STRATEGY: **PARTNER WITH OTHER AGENCIES AND ORGANIZATIONS**

---

1. DISCUSSION

Our leadership should seek opportunities to help recover and maintain the nation's marine protected species (MPS) by working more closely with the National Oceanic and Atmospheric Administration (NOAA), the National Marine Fisheries Service, the National Marine Sanctuaries (NMS), the U.S. Fish and Wildlife Service, the Department of State, the Department of Defense, state and local governments, non-governmental organizations, industry, research institutions, and international organizations. We should partner with concerned agencies and organizations to ensure MPS issues are considered whenever agencies propose new regulations. We should work closely with NOAA, NMFS, the NMS, state and local governments, and international organizations to ensure we are doing all we can to provide enforcement for various marine protected areas, and to assist them with their education and outreach initiatives. We should reach out to other management agencies and research institutions to assist in providing the data needed to answer important questions about marine protected species.

2. KEY OBJECTIVES

a. Near Term

1) Maximize assistance to NMFS in investigation and prosecution of protected MPS incidents.	G-O
2) Work closely with NMFS on MPS issues such as fishing gear conflicts, vessel traffic management, and bycatch reduction.	G-M/G-O
3) Work closely with the Navy to monitor research and development efforts to use acoustics for tracking and avoiding endangered whales.	G-O/G-C
4) Use MOUs, as appropriate, to define relations with the National Marine Sanctuaries and other marine protected areas.	G-L/G-M/ G-O
5) Engage other agencies in a discussion of remote marine protected areas.	G-M/G-O
6) Increase our role in federal and international recovery teams and task forces (e.g., the Coral Reef Task Force, the Manatee Recovery Team, and Right Whale Recovery Plan Implementation Teams).	G-M/G-O
7) Emphasize ship-riding opportunities for NMFS and NMS personnel on CG fisheries/MPS patrols.	G-O

b. Mid Term

1) Establish a senior officer liaison billet to NOAA to increase CG input and interaction in developing MPS issues and regulations.	G-M/G-O
2) Establish a senior officer liaison billet to Council on Environmental Quality (CEQ).	G-M/G-O
3) Create opportunities for undergraduate/graduate level marine affairs students to experience CG fisheries and MPS operations.	G-O

c. Long term

1) Consider engaging other agencies in joint rulemaking for MPS regulations.	G-L/G-M

STRATEGY: **PUBLICIZE OUR EFFORTS**

---

1. DISCUSSION

The Coast Guard already has many marine protected species success stories to tell. We are partnering with the USFWS to educate the boating public and reduce manatee deaths by enforcing speed zone regulations in Florida. We are working closely with NMFS and environmental agencies to help protect the highly endangered northern right whale. In Hawaii, we remove tons of derelict fishing nets from coral reefs that are critical habitat of the endangered Hawaiian monk seal. Conducting this work, however, is only half of the job.

If the public is to perceive us as stewards of the ocean, then we must highlight our efforts and successes to the press and the public at every opportunity. Local units need to let communities know what we are doing to protect their waters. Districts should emphasize the importance of our MPS mission in maintaining healthy, sustainable ecosystems. Area and Headquarters staffs must cultivate relationships with the press, civic leaders, stakeholders and legislators to ensure they are aware of the valuable work the Coast Guard is doing. The public must recognize we are the nation's most valuable maritime asset in the effort to protect and sustain our oceans and their resources. The more we are seen taking positive, decisive action and producing good results, the more the public will demand we be properly resourced to perform this vital mission.

2. KEY OBJECTIVES

a. Near Term

1) Maximize publicity of cooperative MPS efforts with federal and state agencies and non-governmental organizations.	G-I/G-L/ G-M/G-O
2) Maximize publicity of Sea Partners MPS initiatives.	G-I/G-M
3) Use inspections and examinations as opportunities to provide MPS information packages to vessels.	G-M/G-O

b. Mid Term

1) Use publicity to generate interest in, and develop ideas for, future marine environment cleanups and other initiatives.	G-I
2) Optimize publicity of CG role in MPS task forces.	G-I
3) Maximize publicity of CG Auxiliary public education efforts in MPS identification, sensitivity, and avoidance measures.	G-I/G-O

c. Long term

1) Develop an interactive forum for public comment and ideas regarding MPS protection.	G-I
2) Raise the profile of the MPS mission to attract recruits with interest in environmental issues.	G-W

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U.S. Department of Homeland Security
United States Coast Guard

Command
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-OPL-5
Phone: (202) 267-2085
Fax: (202) 267
Email:

COMDTINST 16475.7
MAY 27 2003

COMMANDANT INSTRUCTION 16475.7

Subj: PROTECTED LIVING MARINE RESOURCES PROGRAM

Ref:
(a) National Environmental Policy Act, 42 U.S.C. Sections 4321-4335
(b) Endangered Species Act of 1973, 16 U.S.C., Sections 1531-1544
(c) Marine Mammal Protection Act of 1972 16 U.S.C., Sections 1361-1421
(d) National Sanctuaries Act, 16 U.S.C. 1431 et seq.
(e) Migratory Bird Treaty Act, 16 U.S.C. Sections 703-712
(f) National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts Manual, COMDTINST M16475 (series)
(g) Maritime Law Enforcement Manual, COMDTINST M16247.1 (series)
(h) Final Environmental Impact Statement for the U.S. Coast Guard Atlantic Protected Living Marine Resources (APLMR) Initiative (NOTAL)
(i) Ocean Steward, Protected Living Marine Resources Strategic Plan
(j) COMDT COGARD (G-OPL) Washington DC 261302Z Sep 02 (NOTAL)
(k) COMDT COGARD (G-OPL) Washington DC 251923Z Oct 02 (NOTAL)
(l) Final Baseline Assessment of U.S. Coast Guard Operations in the Gulf of Mexico of 15 Dec 97
(m) Final Baseline Assessment of U.S. Coast Guard Operations in Alaska of 27 Apr 01
(n) Final Endangered Species Act Biological Assessment for the U.S. Atlantic Coast of 1 Aug 95
(o) COMPACAREA COGARD (PO) Alameda CA 031922Z Jul 02 (NOTAL)

1. PURPOSE. Outline Coast Guard actions, during Coast Guard operations, to support the recovery of protected living marine resources through internal compliance with and enforcement of Federal, State and international laws designed to preserve marine protected species. District Commanders are required, as part of the Coast Guard wide effort, to establish, maintain and update their Protected Living Marine Resources Program (PLMRP). The PLMRP will ensure Coast Guard operations

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A	1	1				1	1		1	1			1	1												
B		2	2																							
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NON-STANDARD DISTRIBUTION:

comply with references (a) thru (h) and other applicable Federal regulations and guidance such as Executive Orders. Additionally, to supplement the general enforcement guidance provided by reference (g) the PLMRP will provide specific enforcement guidance, when appropriate, that will address the unique environment and population of protected species of the District. The PLMRP focuses on Coast Guard cutter, boat and aircraft operations; not on the activities involved in construction, maintenance and repair of shore facilities.

2. ACTION. District Commanders shall establish and maintain a Protected Living Marine Resources Program. Internet release is authorized.

3. DIRECTIVES AFFECTED. None.

4. BACKGROUND. Reference (h) is the Coast Guard Environmental Impact Statement (EIS) delineating the potential threat of Coast Guard operations to protected species in the Atlantic Ocean, which includes the preferred alternative to mitigate negative interactions between Coast Guard units and marine protected species. One of the EIS mitigation measures contained in the preferred alternative requires the establishment of a Commandant Instruction on Protected Living Marine Resources and the development of District protected living marine resources programs. In addition, the Marine Protected Species Division (G-OPL-5) was established within the Office of Law Enforcement (G-OPL) and the Commandant issued reference (i): the Coast Guard's Strategic Plan for Marine Protected Species (Ocean Steward). Ocean Steward is a vital element in the Coast Guard's strategic goal of protecting our natural resources.

5. DISCUSSION. In recent years, there has been a dramatic increase in public and governmental concern about the state of our oceans and their living resources. The Coast Guard already has effective, coordinated plans for enforcing our nation's fisheries management regulations, protecting the marine environment from oil pollution, and responding to maritime disasters. There is a need to adapt the same approach to marine protected species, specifically those species and geographic areas that are protected under the Endangered Species Act, the Marine Mammal Protection Act, the National Marine Sanctuaries Act, and similar regulations or executive orders.

6. PROCEDURES. Ocean Steward's goal is to help the nation recover and maintain healthy populations of marine protected species. Baseline Assessments (BA) for all oceanic environments in which the Coast Guard operates will be prepared and updated to assist the process of identifying possible interactions with protected species. Thereafter, Environmental Assessments (EA) and EISs will be prepared as appropriate. Headquarters, working with the affected Area, will prepare BAs, EAs and EISs, with assistance of field units, as needed. These documents will serve to support each District PLMRP. Consistent with these documents Districts shall:

   a. Identify local and migratory/seasonal populations of protected species and take action as appropriate to reduce potential opportunities for conflict between the protected species and Coast Guard vessel or aircraft operations.

      (1) In identifying populations of indigenous and migratory protected species, districts should consider guidance provided in Biological Assessments (references l thru n), local knowledge, National Marine Sanctuaries, and any formally designated and/or candidate Marine Protected Areas. (Enclosure (1) is a current list of marine protected species)

Districts should also consider partnering or coordinating with the local offices of the Fish and Wildlife Service and National Oceanic and Atmospheric Administration Fisheries in identifying populations of indigenous and migratory protected species in the area.

(2) In striving to reduce potential opportunities for conflict between protected species and operations, districts should encourage area avoidance, promulgate speed/approach guidance similar to reference (o), ensure the posting of properly trained lookouts aboard cutters, and other similar measures where appropriate.

b. Participate in multi-agency planning groups to identify potential for non-regulatory cooperative efforts designed to lessen or eliminate future impact upon regional and migratory protected and candidate species. Planning groups appropriate for district participation might include take reduction teams, sanctuary advisory committees, and stranding networks.

c. Record PLMR efforts in appropriate databases (i.e., AOPS, MISLE) and message traffic (i.e., LMR Enforcement Summary, SITREPs) to ensure accurate archiving of Coast Guard activities and Auxiliary response.

(1) AOPS - Record resource hours dedicated to activities involving protected living marine resources. Additional guidance is provided in reference (j) and the AOPS Users Guide. The latter is available on the intranet at http://aops.osc.uscg.mil.

(2) MISLE – Record boardings and enforcement actions involving protected living marine resources. Additional guidance is provided in reference (k) and the MISLE Users Guide. The latter is available on the intranet at http://mislenet.osc.uscg.mil/user_guides.aspx.

(3) LMR Enforcement Summary – Record significant events involving protected living marine resources, including assistance to other agencies and incidents where other operational commitments prevented Coast Guard units from responding to legitimate requests for assistance involving marine protected species recovery activities. Additional guidance is provided in reference (k) and enclosure (4) to reference (g).

(4) SITREP – Law Enforcement SITREPS for events involving protected living marine resources should be prepared in accordance with and when prescribed by enclosure (4) to reference (g).

d. Protected living marine resources programs that support the Coast Guard's Strategic Plan and meet the objectives delineated in reference (i) shall include:

(1) Description of areas of special interest, including designated critical habitats and marine sanctuaries;

(2) Enforcement procedures; Districts should develop specific guidance, taking into account the particularities of the natural environment in which they operate, to supplement the general enforcement guidance already provided in chapter 8, paragraph 3 of reference (g);

(3) Marine animal stranding response protocols to include Area Contingency Plan for Oil and Hazardous Waste Spill Control;

(4) Operational control (OPCON) and monitoring responsibilities;

(5) Procedures for disposition of dead or injured protected species; and

(6) Forms for reporting boat collisions with marine animals, entangled turtles or whales as well as the names and telephone numbers for stranding network personnel. Generic forms, enclosure (2), can be downloaded from the G-OPL-5 website (http://cgweb.uscg.mil/g-o/g-opl/) and customized to meet District specific needs.

Note: (Enclosure (3) is a sample PLMRP instruction, that is illustrative only, and can be downloaded from the G-OPL-5 website (http://cgweb.uscg.mil/g-o/g-opl/) to assist the development of a District instruction tailored for the particular environment)

7. ENVIRONMENTAL ASPECT and IMPACT CONSIDERATIONS. Environmental considerations were examined in the development of this directive. This document falls under categorical exclusion number 33 (figure 2-1) of reference (f) as it is a guidance document that implements applicable statutory, regulatory and other guidance documents without substantive change.

8. FORMS/REPORTS. None.

//S//

D. S. BELZ
Assistant Commandant for Operations

Encl: (1) Listing of Protected Species
(2) Sample Forms
(3) Sample PLMRP Instruction (based on D17 Instruction)

LISTING OF PROTECTED SPECIES

(Current as of 3 April 2003)

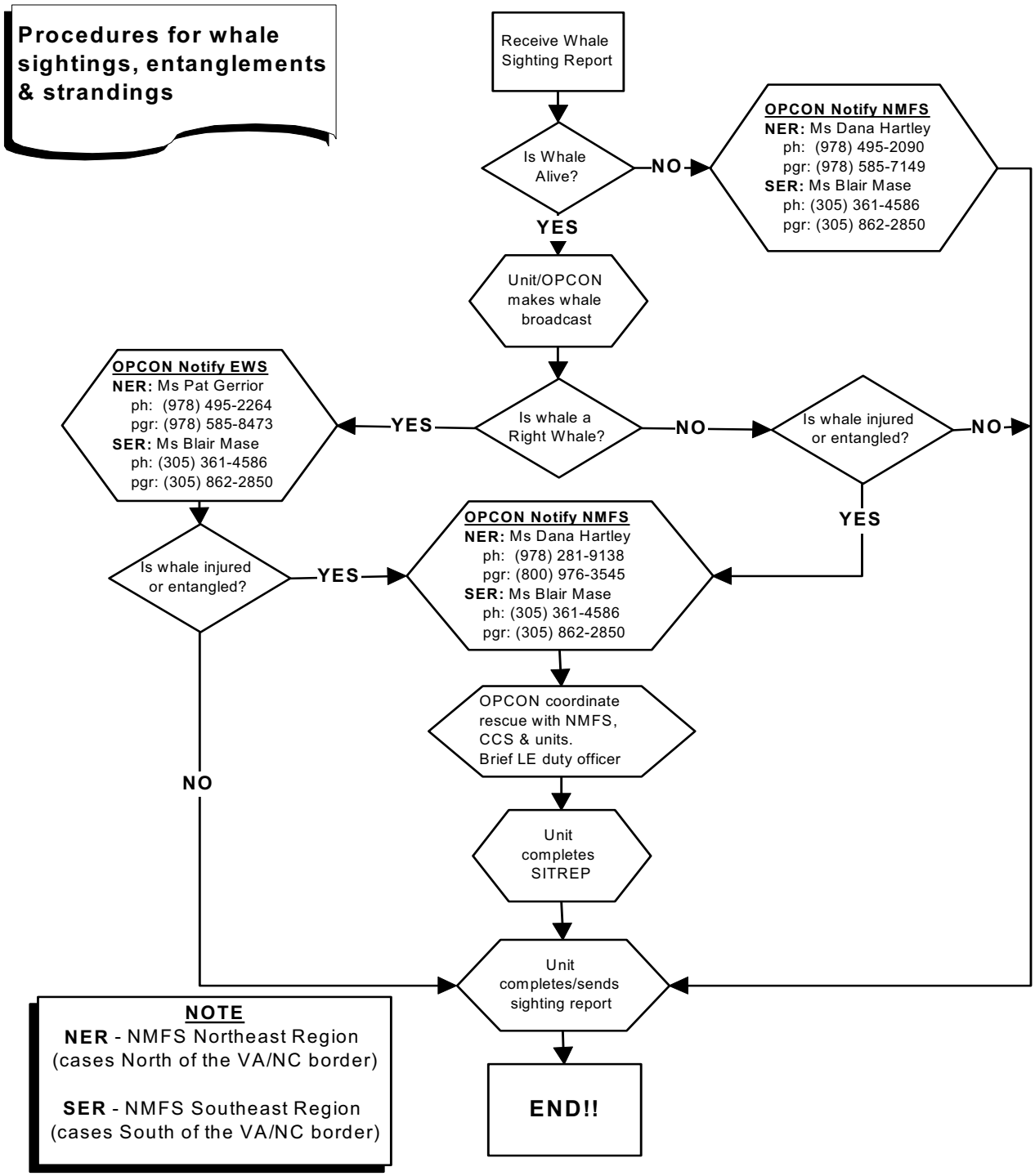
Sea Turtles
Green Turtle
Hawksbill Turtle
Kemp's Ridley Turtle
Leatherback Turtle
Loggerhead Turtle
Olive Ridley Turtle

Cetaceans
Blue Whale
Sei Whale
Fin Whale
Gray Whale
Sperm Whale
Northern Right Whale
Humpback Whale
Beluga Whale
Spinner Dolphin
Spotted Dolphin
Bottlenose Dolphin
Harbor Porpoise

Pinnipeds
Caribbean Monk Seal
Guadalupe Fur Seal
Hawaiian Monk Seal
Steller Sea Lions

* The most current list of protected species is available at <http://www.nmfs.noaa.gov/prot_res/overview/es.html>

Whale Sighting, Entanglement, Stranding Procedures



Whale Sighting Form

Name of Reporter:_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Vessel Name or Aircraft Number:__ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Date and time of sighting:__ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Position (Lat/Long):_ _

Species observed:_ _

ID Certainty: ☐ Definite ☐ Probable ☐ Possible

Number identified:__ _

Distinguishing Characteristics:
[Key features - size, body shape, color, blow, natural markings, (spots, blazes) dorsal fin and flippers (size and shape)]

Comments:
[calf present, injuries/wounds, behavior, other species present]

Photos taken:
[roll & frame numbers, tape number]

After completing form mail to:

New Jersey through Virginia
Protected Species Branch
National Marine Fisheries Service
166 Water Street
Woods Hole, MA 02543
(508) 495-2087 Fax: (508) 495-2258

North Carolina
Blair Mase
SouthEast Fisheries Science Center
75 Virginia Beach Drive
Miami, FL 33149
(305) 361-4586 Fax: (305) 361-4562

ENTANGLEMENT AND BOAT COLLISION REPORTING FORM

I. REPORTING SOURCE

Time/Date: _____ Reporting Source: _____

Vessel Name: _____ Doc/Reg Number: _____

Radio Call: _____ Cell Phone: _____

1st or 2nd hand Report: _____ How long can R/S remain O/S?: _____

II. DETAILS OF INCIDENT

Position: _____ Geographic Desc: _____

O/S Wx: Winds _____T/_____KTS, Swell _____T/_____FT

Seas _____T/_____FT, Vis _____NM, Temp _____F, Baro_____._____(R/F/S)

Species: _____ Number of Animals: _____

Dorsal Fin: _____ Color: _____

Size: _____ Dead/Alive: _____

Distinguishing Marks: _____ Photo/Video Taken: _____

Type of Entanglement:_____ Nature of Injury: _____

Traveling or Anchored by Gear: _____ Course/Speed: _____

III. ENTANGLEMENT

Type of Gear & Identifying Features (color, reg #, etc) _____

Type of Line (Dia, color, material) _____

Mesh Visible?: YES/NO Float/Other Gear Trailing?: _____

Part of Body Entangled?: _____ # Wraps around Tail/Body: _____

Life Threating?/Describe: _____

IV. ANIMAL'S APPEARANCE

First Impression of Condition: _____

Skin Condition (peeling, color, whale lice, etc): _____

Obvious Bleeding/Wounds: _____

Marks Fresh or Healing?: _____

Weight (robust, emanciated, ribs or vertebrae showing): _____

V. ANIMAL'S BEHAVIOR

General Description: _____

Breathing (pattern, sound, smell?): _____

Struggling to Breathe?: _____

Lifting Head/Flukes above water?: _____

Effects on movement (flexibility, bouyancy, surfacing angle, ability to dive, appendage movement, etc):

_____

_____

VI. COLLISION

Type of Wound (prop wound, part cut off, etc)?: _____

Location: _____ Severity: _____

Vessel Involved: _____ Doc/Reg #: _____

Operator: _____ Homeport: _____

COAST GUARD DISTRICT INSTRUCTION 16XXX.X

Subj: PROTECTED LIVING MARINE RESOURCES PROGRAM

Ref: (a) 50 CFR Part 216 - Regulations Governing the Taking and Importing of Marine Mammals
(b) 50 CFR Part 222 - Endangered Fish and Wildlife
(c) 50 CFR Part 226 - Designated Critical Habitats
(d) 50 CFR Part 227 - Threatened Fish and Wildlife
(e) Maritime Law Enforcement Manual, COMDTINST 16247.1 (series)

1. PURPOSE. This instruction directs Coast Guard units within XXXXXX District waters to further federally mandated protection and recovery objectives for marine mammals and endangered marine species. It is intended to minimize the impact of Coast Guard operations on such species and to prevent, detect, and initiate enforcement action on, violations of those U.S. laws protecting Marine Mammals and Endangered Species.

2. ACTION. All XXXXX District units, cutters, and aircraft operating within the XXXXX District shall comply with the provisions of references (a) through (e) and enclosure (1) of this instruction.

3. DIRECTIVES AFFECTED. None

4. DISCUSSION. The National Oceanic and Atmospheric Administration (NOAA) Fisheries is the primary federal agency responsible for the conservation and management of Living Marine Resources (with the exception of sea otters, polar bears and walrus which are under the jurisdiction of the U.S. Fish and Wildlife Service). The Coast Guard has authority to perform law enforcement activity upon the high seas and waters subject to U.S. Jurisdiction for the prevention, detection, and suppression of violations of U.S. Law, as well as to provide support to NOAA Fisheries to meet management goals for protected marine mammals. The Coast Guard and NOAA Fisheries are both responsible for enforcing violations of the Endangered Species Act (ESA).

5. ENVIRONMENTAL ASPECT and IMPACT CONSIDERATIONS. Environmental considerations were examined in the development of this directive, and have been determined not to be applicable.

6. FORMS/REPORTS. None.

XXXXXXXXXXX
Chief of Staff

Encl: (1) Marine Mammal & Endangered Species Protection Program

PROTECTED LIVING MARINE RESOURCES PROGRAM
(Enclosure (1) to Sample DISTINST)

1. AREAS OF SPECIAL INTEREST. The XXXXX District Protected Living Marine Resources Program applies to littoral and offshore waters. However, designated critical habitats are of special importance. Units should review reference (c) to become familiar with those habitats designated as critical to endangered and threatened species under Section 7 of the Endangered Species Act (ESA). Within the XXXXX District, specific areas of concern include steller sea lion rookeries, haulouts and associated areas as listed in part 226.12(a) and 227.12, and three proposed special aquatic foraging areas as listed in part 226.12(c).

2. CUTTER TRANSITS. Whales can be expected to be encountered in inshore and offshore waters of the XXXXX District throughout the year.

   A. During the course of non-emergent operations all vessels will incorporate the following speed guidance:
      Reductions in vessel speed should be considered when a whale is sighted, known to be in the immediate area, or known to have been sighted within five nautical miles. In these situations, vessels shall use those courses and speeds as appropriate, yet navigationally prudent, to avoid a collision with a whale, and if necessary, reduce speed to a minimum at which the vessel can be kept on course or come to all stop.

   B. During the course of non-emergent operations all vessels will incorporate the following approach guidance:
      Do not approach whales head-on, nor approach within 100 yards. Approach distances may vary if the Coast Guard vessel is assisting in the rescue of an endangered whale or performing duties to enforce the Endangered Species Act or Marine Mammal Protection Act.

   C. These guidelines should not influence the conduct of emergency operations: those that require rapid response such as SAR to avoid loss of life and property, urgent law enforcement incidents, and situations involving national security.

3. UNIT RESPONSIBILITIES:

A. NOTIFICATIONS:

(1) ENTANGLEMENTS, BOAT COLLISIONS, AND STRANDINGS - In cases of entanglement, boat collisions or strandings units shall complete the appropriate form and pass the information to the command center immediately. A copy of the Entanglement & Boat Collision Reporting Form is provided as enclosure (2). Coast Guard units should not attempt to remove debris from entangled whales. A Marine Mammal Stranding Report is provided as enclosure (3). The Command Center shall notify the appropriate authorities as outlined below:

(a) Entangled or stranded whales. The DXX Command Center shall immediately notify the NOAA Fisheries Protected Resource Management Division's Stranding Coordinator at (907)586-7235 (fax: 586-7012).

(b) Stranded/entangled Steller Sea Lions. Steller Sea Lion stocks west of 144° W longitude have recently been listed on the endangered species list. The DXX Command Center shall immediately notify the NOAA Fisheries Protected Resource Management Division's Stranding Coordinator at (907)586-7235 (fax: 586-7012).

B. LOGISTICAL SUPPORT. Units are authorized and may be tasked by OPCON to provide logistical support for NOAA Fisheries-approved disentanglement and stranding teams and their equipment.

C. SITREP. All cases involving protection of endangered species will be documented via SITREP.

D. LETTER REPORT. Units which assist in the salvage, rescue or disposal of a marine mammal shall submit a letter report to the U.S. Fish and Wildlife Service in accordance with chapter 8 of the Maritime Law Enforcement Manual, with an information copy to CGDXX (moc).

4. DISPOSAL OF PROTECTED SPECIES. There is no specific U.S. Coast Guard responsibility for the salvage or disposal of dead whales. Only situations that pose a safety, health or navigation hazard, or involve significant public affairs interest should be pursued. Units shall not tow or attempt to sink dead marine mammals without OPCON concurrence. If there is no follow-up determined to be necessary by appropriate organizations after having been notified about the location of a dead whale or other protected species, abandon the

carcass and continue with normal operations.

5. DXX WHALE SIGHTING PROGRAM:

A. UNIT PREPARATIONS. Units operating in the DXX AOR should review references (a) through (d) and follow the guidelines outlined in this instruction to establish an effective unit sighting program. The program will include reporting sightings to the National Marine Mammal Laboratory (NMML) for inclusion in their national data base. NMML distributed sighting forms to all cutters in PACAREA in June 1996. Additional forms may be obtained by calling the NMML at 206-526-4030. They will also answer any questions about the national sighting program.

B. IDENTIFICATION GUIDES. Units should ensure that appropriate personnel are able to identify protected species. The Guide to Marine Mammals of Alaska is available from the Alaska Sea Grant College Program at the University of Alaska Fairbanks for $15.00. This publication has pages which are water resistant in spiral bound format. NMML also recommends the Sierra Club Handbook of Whales and Dolphins and the Sierra Club Handbook of Seals and Sirenians, both available from the Sierra Club Bookstore, San Francisco (415)977-5600.

C. COLLATERAL DUTY ASSIGNMENT. Units should identify a person onboard that has primary responsibility for photographing, videotaping and submitting completed sighting forms for endangered marine mammals.

D. SIGHTING PRIORITIES. All sightings of marine mammals should be documented on the NMML Marine Mammal Sighting form. The specific priorities of the DXX sighting program are:

(1) Entangled or injured whales;

(2) "Floaters" - dead whales;

(3) Large groups of whales.

E. PROBABLE LOCATIONS OF WHALES. Historical sighting data from aerial and shipboard surveys indicates whales are normally found in the vicinities of:

(1) West Coast of Alexander Archipelago (March-June) - gray whale seasonal migrants seen close to shore on the northbound transit.

(2) Shelikof Bay (Kruzof Island) (July-August) - a few gray whales are seen in and near this bay.

(3) Davidson Bay (Chichagof Island) (July-August) - a few gray whales are seen in and near this bay.

(4) West coasts of Prince of Wales Island, Baranof Island and Chichagof Island (March-September) - humpback whales are found in scattered distribution. (September-early February) - humpback whales are found in clumped distribution in areas where herring overwinter (Ullola Channel, Sitka Sound, Tenakee Inlet and sometimes Salisbury Sound and Lisianski Inlet).

(5) Ketchikan Area (Revillagigedo Channel and lower Clarence Strait) (December) - a few humpback whales, with increasing sightings in the past 2-3 years.

(6) Seymour Canal (October-early February) humpback whales.

(7) Lower Lynn Canal and upper Stephens Passage (May-September and January) - humpback whales in increasing numbers in the past 2-3 years.

(8) Upper Lynn Canal (May) - humpback whales.

(9) Frederick Sound and Stephens Passage (late July-September) - humpback whales.

(10) Chatham Strait (May-October) - humpback whales. Tenakee Inlet has sightings into October most years.

(11) Icy Strait and Glacier Bay (May-September) humpback whales.

(12) Coastal corridor Cape St. Elias to Unimak Pass (March-June) - migrating gray whales.

(13) Middleton Island to shelf edge SE of Kodiak (Summer) - sperm whales.

(14) Stevenson Entrance (between Afognak and Barren Islands) and Marmot Bay (June-October) - humpback and fin whales.

(15) Unimak Pass (Spring-Fall) - migrating gray whales. (Summer and possibly year-round) - humpback whales.

(16) Western Aleutians (Buldir, Seguam Pass) (Summer) - sperm whales and beaked whales.

(17) Shelikof Strait to Chirikof Is. (spring-fall) - humpback and fin whales.

(18) Upper Cook Inlet (May-September) - beluga whales.

(19) Kenai River (September-October) - beluga whales.

(20) Kachemak Bay (May) - beluga whales.

(21) Kotzebue (June-July) - beluga whales.

(22) Point Lay (July) - beluga whales.

(23) Yakutat (Winter) - beluga whales.

(24) Norton Sound beluga whales follow the icepack north.

(25) Bowhead whales are found on the North Slope and also in the North/Northwestern Bering Sea.

F. FORWARDING OF SIGHTING REPORTS. Whale sighting information shall be documented on the NMML Marine Mammal Sighting form, and forwarded to the address on the form at the end of patrol. Use of 35-mm photographs and VHS video to supplement reports is encouraged.

6. ENFORCEMENT OF MMPA AND ESA VIOLATIONS

A. PHILOSOPHY. Enforcement of Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA) regulations will target significant violators. The MMPA prohibits the take of all marine mammal species in U.S. waters. "Take" is defined as "to harass, hunt, capture, collect or kill, or attempt to harass, hunt, capture, collect or kill any marine mammal." Education is recognized as being a fundamental part of enforcement efforts.

B. HARASSMENT DEFINITIONS. The term "harassment" is an element of taking under the MMPA and includes two levels:

(1) LEVEL A - An act of pursuit, torment, or annoyance that has the potential to injure a marine mammal or marine mammal stock in the wild.

(2) LEVEL B - An act of pursuit, torment, or annoyance that has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns including, but not limited to, migration, breathing, nursing, breeding, feeding or sheltering, but which does not have the potential to injure a marine mammal or marine mammal stock in the wild.

C. EXAMPLES OF HARASSMENT:

(1) Human Interactions - Diving or swimming, throwing objects, human feeding (disrupts natural eating habits), high speed approaches by a vessel, and deliberately maneuvering a vessel close to a whale are clear examples of harassment.

(2) More Subtle Violations - Units should also be aware of more subtle violations.

Persistent engagement of a vessel in a manner that results in a recognizable and articulable disturbance of the marine mammal or endangered marine species is also a violation. Detailed narratives, videotapes, and/or photographs are essential in thoroughly documenting these cases.

D. STANDARD FOR DOCUMENTING VIOLATIONS. Evidence of the following elements of a violation should be obtained to establish a violation of the MMPA or ESA:

(1) Personal knowledge of the guidelines contained in references (a) through (d) (this can be assumed of whale watching boat operators).

(2) Refusal to observe the guidelines contained in references (a) through (d) once advised/reminded.

(3) Documented behavior (observed, photographed, videotaped, etc.) fitting the harassment definition above.

(4) Distances between the violator and whale before, during, and after the incident.

(a) Buffer Zone. There is a buffer zone surrounding all whales which consists of an area outward from the whale a distance of 100 yards in all directions. Northern right whales have a 500 yard buffer zone.

(b) Approaches. Vessels may not approach a whale or turn in any manner to intercept a whale within a buffer zone.

(c) Interference. No vessel may disrupt the behavior of a whale within a buffer zone.

(d) Exceptions. Any person issued a federal scientific research permit may conduct scientific research, observation or management as authorized under the permit.

(e) Commercial Fishing. Commercial fishing vessels hauling back, towing gear or fishing at anchor within a buffer zone created by a surfacing whale
may complete the haul, tow or fishing operation, provided it does so with minimum disruption to the whale, does so in a direction away from the whale and departs the buffer zone immediately after the haul, tow or fishing operation.

E. ISSUING A VIOLATION

(1) Standards Present - If "harassment" as discussed in paragraph 6 is observed, board the vessel (if weather/operations permit) and attempt to educate the vessel

operator. Issuing a written warning for minor infractions is authorized at the boarding officer's discretion if it is deemed that the mariner's actions were unintended or due to ignorance of the law and will be corrected.

(2) Persistence - If the master of the vessel persists in harassment, or the actions of the vessel are plainly dangerous or involve a significant act of harassment, issue a violation to the master.

(3) Documentation - In documenting a violation, it is critical to identify distances as well as marine mammal behavior before, during, and after the incident. Submit the Enforcement Action Report (EAR) and documentation in the same manner as MFCMA violations to the local NMFS agent. A list of all witnesses to the incident with phone numbers and/or addresses is also very important. Identify individuals or other vessels who are potential witnesses in your Offense Investigation Report (OIR) statements.

F. SPECIAL CIRCUMSTANCES INVOLVING WHALE WATCHING BOATS. Commercial whale watching boats need not be boarded for all perceived violations. If apparent violations are observed, document the suspected violations (obtain necessary information via radio) and forward the completed case package (if appropriate) to NMFS, with a copy to the appropriate MSO for possible licensing sanctions.

U.S. Department of Homeland Security
United States Coast Guard

Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
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Phone: (202) 267-1770
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Email:

COMDTINST 16004.3A
OCT 15 2003

COMMANDANT INSTRUCTION 16004.3A

Subj: COAST GUARD PARTICIPATION IN THE MARINE SANCTUARY PROGRAM

Ref: (a) Abstract of Operations Reports, COMDTINST M3123.7 (series)
(b) Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series)
(c) COMDT COGARD Washington DC 261302Z SEP 02

1. PURPOSE. To provide policy guidance for Coast Guard participation in the National Marine Sanctuary Program.

2. ACTION. Area and district commanders, commanders of maintenance and logistics commands, commanding officers of headquarters units, assistant commandants for directorates, Chief Counsel, and special staff offices at Headquarters shall ensure compliance with the provisions of this Instruction. Internet release is authorized.

3. DIRECTIVES AFFECTED. Coast Guard Participation in the National Marine Sanctuary Program, COMDTINST 16004.3, and National Marine Sanctuary Law Enforcement Program, COMDTINST 16214.2, are cancelled.

4. BACKGROUND.

   a. In 1972, in response to a growing awareness of the intrinsic environmental and cultural value of our coastal waters, Congress passed the Marine Protection, Research, and Sanctuaries Act (16 U.S.C. 1431, et seq.). The Marine Protection, Research, and Sanctuaries Act (NMSA) authorizes the Secretary of Commerce to designate discrete areas of the marine environment as national marine sanctuaries to promote comprehensive management of their unique ecological, historical, recreational and aesthetic resources.

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	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
A	1	1				1	1		1	1			1	1												
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b. The National Marine Sanctuary Program (NMS) is administered by the Secretary of Commerce through the National Oceanic and Atmospheric Administration's (NOAA) National Ocean Service (NOS). The program provides a coordinated and comprehensive approach to identify, designate and manage areas of the maritime environment of special national significance.

c. The goals of the NMS program are:

(1) To enhance resource protection through the implementation of a comprehensive, long-term management plan tailored to specific resources;

(2) To promote and coordinate research to expand the scientific knowledge of significant marine resources and improve interagency decision making;

(3) To enhance public awareness, understanding, and wise use of the marine environment through public interpretive and recreational programs; and

(4) To provide, to the extent compatible with the primary objective of resource protection, the optimum public and private use of special marine areas.

d. NOS is responsible for carrying out these goals through cooperative partnerships between Federal, state and local agencies, educational and research institutions, and nongovernmental organizations. The Coast Guard contributes to this effort through waterways management responsibilities, marine environmental protection activities, and the enforcement of sanctuary regulations as a part of its law enforcement activities.

e. Thirteen national marine sanctuaries are currently designated and a fourteenth is proposed. The contact information for each of these sanctuaries is listed in enclosure (1).

5. DISCUSSION.

a. Enforcement Authority.

(1) Where marine sanctuaries lie in state waters, NOS primarily coordinates enforcement with state enforcement agencies. In waters beyond state jurisdiction, the Coast Guard is the primary maritime enforcement agency.

(2) The Coast Guard has authority to enforce the NMSA under 14 U.S.C. 2 and 14 U.S.C. 89. Section 1437(h) of the NMSA specifically states that nothing shall be considered to limit the Coast Guard's authority to enforce the NMSA or any other Federal law. The Coast Guard may enforce all applicable Federal laws within the boundaries of national marine sanctuaries.

(3) Violations of marine sanctuary regulations are prosecuted by the NOAA General Counsel.

b. Enforcement Philosophy. NOS's sanctuary management philosophy is based primarily upon an educational approach. Their objective is to foster voluntary compliance by those who use the Nation's marine sanctuaries, and to promote a feeling of stewardship toward the various living and cultural resources these sanctuaries were created to protect. The Coast Guard supports this philosophy. Nevertheless, sanctuaries require routine presence of law enforcement resources to deter and detect violations.

c. Sanctuary Management Plans. Each marine sanctuary is unique and is managed and regulated by NOS with regard to its location and the specific nature of, and threats to, its resources. Individual sanctuary management plans establish the framework to achieve long term resource protection by tailoring management programs to the needs of the particular site.

6. PROCEDURES.

a. Effective coordination of waterways management issues, marine environmental protection issues, and the enforcement of sanctuary regulations are important components of the National Marine Sanctuary Program. To that end, the Coast Guard will work closely with NOS to ensure the comprehensive and coordinated conservation and management of these special areas of the marine environment. Particularly, the Coast Guard will work with NOS to ensure its enforcement efforts complement those of other Federal, state and local agencies.

b. The Coast Guard will actively participate at all levels with NOS and other Federal, state and local agencies in evaluating proposals for new sanctuaries, developing management plans and regulations for designated sanctuaries, and coordinating Coast Guard operations within sanctuary boundaries. The Coast Guard's early involvement in the development stage of management plans is particularly important to effectively integrating Coast Guard programs within the sanctuaries.

c. The Coast Guard will assist NOS in its efforts to educate the boating public with regard to marine sanctuary regulations by involving the Coast Guard Auxiliary. By incorporating information provided by NOS on the sanctuary program, the Auxiliary can significantly contribute to the goal of enhancing public awareness of sanctuary regulations and promoting public stewardship of these unique national resources.

d. Area commanders shall:

(1) Designate an appropriate office to coordinate area and district participation in the National Marine Sanctuary Program.

(2) Ensure units under their command properly document marine sanctuary enforcement efforts per reference (a).

e. District commanders shall:

(1) Establish close liaison with the regional NOAA Fisheries Special Agent in Charge and local sanctuary managers to determine appropriate levels of enforcement activity and ensure timely analysis of enforcement needs. Procedures for coordinating enforcement activity shall be set out in a Memoranda of Agreement (MOA). Copies of such agreements shall be provided to Commandant (G-OPL) and the cognizant area commander.

(2) Provide routine surveillance of the marine sanctuaries concurrently with other Coast Guard operations, and provide specific, targeted or dedicated law enforcement as appropriate. Sanctuary surveillance and enforcement should be incorporated into routine patrol orders where feasible.

(3) Keep NOAA Fisheries and the local sanctuary managers informed of Coast Guard operations occurring within sanctuary boundaries.

(4) Participate with NOS and other Federal, state and local agencies in the development of sanctuary management plans and regulations to provide advice on the enforceability and safety of regulatory proposals and impacts on Coast Guard operations within sanctuary boundaries.

(5) Assist NOAA Fisheries and the local sanctuary managers in assessing the level and nature of user activity in the sanctuaries through coordinated surveillance patrols.

(6) Review violations of sanctuary regulations as documented by Coast Guard units on Enforcement Action Reports and Offense Investigation Reports. Forward completed enforcement case documentation to NOAA Fisheries for processing and final adjudication by NOAA General Counsel per reference (b).

(7) Coordinate cooperation of the Auxiliary with the local sanctuary managers in providing NOS educational material to the boating public during Auxiliary boating safety courses, courtesy safety examinations, and other activities as deemed appropriate.

f. The Assistant Commandant for Operations (G-O) shall, through the Office of Law Enforcement (G-OPL):

(1) Participate at the national level as the central headquarters point of contact for the National Marine Sanctuary Program and law enforcement issues.

(2) Coordinate with the Office of Response (G-MOR) for marine environmental protection and contingency planning issues.

(3) Coordinate with the Office of Aids to Navigation (G-OPN) and the Office of Vessel Traffic Management (G-MWV) for navigation and waterways management issues.

7. ENVIRONMENTAL ASPECT and IMPACT CONSIDERATIONS. Environmental considerations were examined in the development of this directive. This Instruction falls under categorical exclusion number 33 (figure 2-1) of National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts Manual COMDTINST M16475.1 (series) as it is a guidance document that implements applicable statutory, regulatory and other guidance documents without substantive change.

8. FORMS/REPORTS.

   a. Marine sanctuary enforcement effort shall be documented as ELT-PLMR mission/employment category in aircraft, boat and cutter abstract of operation reports per references (a) and (c).

   b. Violations of marine sanctuary regulations shall be documented on the Enforcement Action Report (CG-5201) and the Fisheries Boarding Investigation Report (FBIR four page form) or Offense Investigation Report (CG-5202) per reference (b), and reported in MISLE.

D. S. BELZ/s/
Assistant Commandant for Operations

Encl: (1) List of designated and proposed National Marine Sanctuaries

Encl. (1) to COMDTINST 16004.3A

LIST OF DESIGNATED AND PROPOSED NATIONAL MARINE SANCTUARIES

CHANNEL ISLAND NATIONAL MARINE SANCTUARY

Santa Barbara Office
113 Harbor Way, Suite 150
Santa Barbara, CA 93109
Phone: (805) 966-7107
Fax: (805) 568-1582

Southern Office
Channel Islands Harbor
3600 S. Harbor Blvd., Suite 217
Oxnard, CA. 93035
Phone: (805) 382-6149
Fax: (805) 382-9791
Sanctuary Manager: Chris Mobley
E-mail: Chris.Mobley@noaa.gov
Web: http://channelislands.noaa.gov/

CORDELL BANK NATIONAL MARINE SANCTUARY

1 Bear Valley Rd.
Point Reyes Station, CA 94956
Mailing address:
PO Box 159
Olema, CA 94950
Phone: (415) 663-0314
Fax: (415) 663-0315
Sanctuary Manager: Dan Howard
E-mail: cordellbank@noaa.gov
Web: http://cordellbank.noaa.gov/

FAGATELE BAY NATIONAL MARINE SANCTUARY

Fagatele Bay National Marine Sanctuary
P.O. Box 4318
Pago Pago, American Samoa 96799
Phone: (684) 633-7354
Fax: (684) 633-7355
Sanctuary Coordinator: Nancy Daschbach
E-mail: fagatelebay@noaa.gov
Web: http://fagatelebay.noaa.gov/

FLORIDA KEYS NATIONAL MARINE SANCTUARY

P.O. Box 500368
Marathon, FL 33050
Phone: (305) 743-2437
Fax: (305) 743-2357
Sanctuary Superintendent: Billy Causey
E-mail: billy.causey@noaa.gov
Web: http://floridakeys.noaa.gov/

FLOWER GARDEN BANKS NATIONAL MARINE SANCTUARY

1200 Briarcrest, Suite 4000
Bryan, TX 77802
Phone: (979) 846-5942
Fax: (979) 846-5959
Sanctuary Manager: George Schmahl
E-mail: george.schmahl@noaa.gov
Web: http://flowergarden.noaa.gov/

GRAY'S REEF NATIONAL MARINE SANCTUARY

10 Ocean Science Circle
Savannah, GA 31411
Phone: (912) 598-2345;
Fax: (912) 598-2367
Sanctuary Manager: Reed Bohne
E-mail: graysreef@noaa.gov
Web: http://graysreef.noaa.gov/

GULF OF THE FARALLONES NATIONAL MARINE SANCTUARY

Fort Mason, Bldg. 201
San Francisco, CA 94123
Phone: (415) 561-6622
Fax: (415) 561-6616
Sanctuary Manager: Ed Ueber
E-mail: farallones@noaa.gov
Web: http://farallones.nos.noaa.gov

HAWAIIAN ISLANDS HUMPBACK WHALE NATIONAL MARINE SANCTUARY

Maui Headquarters Office
726 South Kihei Road
Kihei, Hawaii 96753
Phone: (800) 831-4888 or (808) 879-2818
Fax: (808) 874-3815
Sanctuary Manager: Naomi McIntosh
E-mail: hihumpbackwhale@noaa.gov
Web: http://hawaiihumpbackwhale.noaa.gov/

MONITOR NATIONAL MARINE SANCTUARY

The Mariners' Museum
100 Museum Drive
Newport News, VA 23606
Phone: (757) 599-3122
Sanctuary Manager: John Broadwater
E-mail: monitor@noaa.gov
Web: http://monitor.noaa.gov/

MONTEREY BAY NATIONAL MARINE SANCTUARY

MBNMS Main Office
299 Foam Street
Monterey, California 93940
Phone: (831) 647-4201
Fax: (831) 647-4250
Sanctuary Superintendent: William Douros
E-mail: william.douros@noaa.gov
Web: http://montereybay.noaa.gov/

(Proposed 14th sanctuary) NORTHWESTERN HAWAIIAN ISLANDS CORAL REEF ECOSYSTEM RESERVE

6700 Kalanianaole Hwy, #215
Honolulu, HI 96825
Phone: (808) 397-2668
Sanctuary Designation Coordinator: Sean Corson
E-mail: sean.corson@noaa.gov

OLYMPIC COAST NATIONAL MARINE SANCTUARY

115 East Railroad Ave
Suite 301
Port Angeles WA 98362
Phone: (360) 457-6622
Sanctuary Superintendent: Carol Bernthal
E-mail: olympiccoast@noaa.gov
Web: http://olympiccoast.noaa.gov/

STELLWAGEN BANK NATIONAL MARINE SANCTUARY

175 Edward Foster Road
Scituate, MA 02066
Phone: (781) 545-8026
Fax: (781) 545-8036
Sanctuary Superintendent: Craig MacDonald, Ph.D.
E-mail: craig.macdonald@noaa.gov
Web: http://stellwagen.nos.noaa.gov/welcome.html

THUNDER BAY NATIONAL MARINE SANCTUARY AND UNDERWATER PRESERVE

145 Water Street
Alpena, Michigan 49707
Phone: (989) 356-8805
Fax: (989) 354-0144
Sanctuary Manager: Jeff Gray
E-mail: jeff.gray@noaa.gov
Web: http://thunderbay.noaa.gov/

APPENDIX E

AIR QUALITY ANALYSIS

San Diego MSST

Scenario

San Diego Intrastate AQCR

2 boats in harbor, 9,000 total hours per year
3 boats on trailers for remote assignments; assume maximum of two in water 6 hrs/day, all outside San Diego Intrastate AQCR.
1 spare boat
4 F-350 Ford gasoline pickups tow the trailers. Used about 15 days per month.
4 F-550 Ford gasoline stake-bed trucks with trailers. Used about 15 days per month.
3 15 passenger gasoline vans. Used about 15 days per month.

During military load-outs, the Harbor boats will patrol 12 hr/day for 1-2 days. The frequency of such events is dependent on world events, but will be at least 1-2 per month for the near future.

The trailered boats could be deployed to any location on the southern coast of the California, but their duties will be primarily located in San Diego Harbor.

The 12 knot speed mentioned in the Description of Proposed Action is an average speed rather than an actual speed. The boats would rarely actually travel at 10-12 knots because that is a transition speed between displacement and planing for a boat of this size. As a result, that speed generates a significant wake, and results in unnecessary fuel consumption and emissions.

Boats will patrol at 7-8 knots in the harbor, with occasional periods of travel of approximately 35 knots to relocate, or to go out or return from escort assignments. Staff estimate 80% of the time is spent at low speed, and 20% of the time is spent a cruising speed. There are also occasional momentary bursts of up to 50 knots to intercept other watercraft.

No new construction is associated with the Proposed Action.

There will be 76 active duty personnel associated with the Proposed Action. These will all be new staff to the San Diego Coast Guard facility.

Assumptions:

Assume that the two harbor patrols will be in San Diego Intrastate AQCR 100% of the time, running a total of 9,000 hours per year

Assume that the boats will operate only in San Diego Harbor and along the coast of San Diego County.

Assume that all commuter vehicles are in San Diego Intrastate AQCR 100% of the time.
Assume that pickups with boat trailers will commute out of San Diego Intrastate AQCR 15 days per month.

No historical data on fuel use for comparable Coast Guard watercraft were available for San Diego. However according to Chief Petty Officer Mark Wilkins (telecon 11/26/02) Coast Guard MSST patrols use about 45 gal in a 12-hour day.

Based on mileage data from comparable engines, see "Power Requirements" worksheet, these outboard motors have a thermal efficiency of approximately 22.6%.

$$\frac{(3.75\ \text{gal/hr})\ (130{,}000\ \text{Btu/gal})\ (22.6\%\ \text{thermal efficiency})}{3413\ \text{Btu/kW-hr}} = 32\ \text{kW}$$

Based on tests of outboard boat efficiency, see "Power Requirements" worksheet, a 24 foot boat uses approximately 10.3 gal/hr at a cruising speed of 32 MPH. If we assume 80:20 ratio of cruising to idle speed for the deployed boats, as opposed to 20:80 for the Harbor Patrol boats, then the deployed boats would be expected to consume approximately 8.75 gallons per hour.

$$\frac{(8.75\ \text{gal/hr})\ (130{,}000\ \text{Btu/gal})\ (22.6\%\ \text{thermal efficiency})}{3413\ \text{Btu/kW-hr}} = 75\ \text{kW}$$

Assume that the average total power demand for patrol boats over their 12-hour shifts will be:

50 HP avg. engine load to patrol harbor = 37 kW

Boat Activity in San Diego Intrastate AQCR:

Totals 9,000 boat-hrs in San Diego Intrastate AQCR or: **335,475 kW-hrs**

On-Road Motor Vehicles
This analysis will compute emissions associated with 70 active duty staff vehicles commuting an average of 40 miles per day (20 miles each way), one person per car, 240 days per year.
Reservists will be assumed to originate outside of San Diego Intrastate AQCR, so their mileage will be based on 12 round trips per year from the edge of the air basin (approximately 200 miles in the San Diego Intrastate AQCR each round trip)
The F-350 pickups, F-550 trucks, and passenger vans will be assumed to travel to the edge of San Diego Intrastate AQCR 15 times per month (approximately 200 miles in the San Diego Intrastate AQCR each round trip).
Fleet makeup and age assumptions are listed and emission factors are computed on the "Commute" sheet in this workbook.

Motor Vehicle Activity in San Diego Intrastate AQCR:

76 active duty staff, 40 mi/day, 240 days/yr.	729,600 vehicle miles traveled
4 Ford F-350s, 120 miles/trip, 180 trips/yr	86,400 vehicle miles traveled
4 Ford F-550s, 120 miles/trip, 180 trips/yr	86,400 vehicle miles traveled
3 15 passenger vans, 120 miles/trip, 180 trips/yr	64,800 vehicle miles traveled

Motor vehicle activity in air basins outside of San Diego Intrastate AQCR will be negligible and has not been evaluated.

Emissions From Watercraft

The specification for the Proposed Action motor procurement requires that current and future MSST engines meet federal 2006 model year emission standards for outboard motors (= California 2001-2003 MY standards).

Emission Factors **Not** Used in This Analysis - Presented for Comparison Purposes Only

Emission Factors from U.S. EPA NonRoad Model Version 2.2.0
For 4-Stroke Inboard Engines, Technology M3

Exhaust Emissions				Refuel	Diurnal
NOx g/kW-hr	HC g/kW-hr	CO g/kW-hr	PM10 g/kW-hr	HC g/day	HC g/day
10.36	5.41	173.75	0.08	1.8	3.0

The NonRoad Model does not include emission factors for 4-stroke outboard motors. Furthermore, the NonRoad Model emission factors do not anticipate the federal MY2006 outboard engine emission standards (which the Proposed Action motors must meet). These factors are moderately lower than the factors used in this analysis for NOx and HC, and moderately higher than the factor used in this analysis for CO. This PM10 factor is significantly lower than the factor used in this analysis, and may be more representative of a 4-stroke outboard than the factor used in this analysis. However, if the currently-selected engines were to be replaced by 2-stroke engines at some time during the life of the Proposed Action, the NonRoad Model PM10 factor listed above would likely underestimate 2-stroke outboard engine emissions.

Emission Certification Data Submitted by Honda Motor Corp. to EPA and CARB for the BF200A/BF225A Series engines.

NOx g/kW-hr	HC g/kW-hr	CO g/kW-hr
6.39	3.54	139.05

These factors are representative of the engines selected this year for the MSST watercraft. However, they may not be representative of any future engines that may replace these engines.

The emission factors to be used for this analysis are generic factors which are higher than the engine certification factors for the particular engines selected for the Proposed Action. The generic factors are computed to correspond to the federal 2006 emission standards, as discussed on the following page.

Federal 2006 Outboard Engine Emission Standard (Ref: 40 CFR 91.104

$$NO_x \& HC\ (g/kW\text{-}hr) = [0.25 \times (151 + 557/Ptx^{0.9})] + 6$$

where Ptx = engine rated output in kW

The emission standard is a NOx+HC standard that is expressed by an exponential formula based on the engine horsepower rating. For a 200 HP engine, the formula works out to 46 g/kW-hr NOx+HC. The ratio of NOx to HC used to allocate this 46 g/kW-hr to individual pollutant emission factors is based on the measured emissions from seven MY2002 engine families in the 140 kW+ (200 HP+) size range that meet California 2001-2003 (same as federal 2006) emission standards. The CO factor is based on the highest three CO measurements out of the seven engine families that meet the standard.

Emission Factors Used for Outboard Motors

NOx g/kW-hr	HC g/kW-hr	CO g/kW-hr	PM10 g/kW-hr	SOx g/kW-hr
14	32	140	1.3	1.2

A comparison of these default 'compliant' emission factors to the actual certification data for the engines selected for these boats indicates that this estimate will conservatively over-estimate NOx, HC and CO for these new engines, and should be conservatively high for any future engines that may replace these engines during the life of the Proposed Action.
Available references documenting emission factors for outboard motors generally provide data for NOx, HC, and CO only. For this analysis, PM10 and SOx factors for gasoline engines were taken from U.S. EPA AP-42 Table 3.3-1 dated 10/96.

Estimated Emissions From Watercraft

	NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	SOx ton/yr	
Annual	5.18	11.83	51.77	0.49	0.46	Note (1)

(1) 335,475 kW-hrs per year in San Diego Intrastate AQCR, see Assumptions section of this worksheet.

Diurnal and refueling emissions for these watercraft are estimated to be only 17 lbs per year.

Emissions From Commuter and Tow Vehicles

Emission Factors Used for the Commuter Fleet

	NOx g/mi	HC g/mi	CO g/mi	PM10 g/mi	SOx g/mi	
Commuter Vehicles	1.2	1.3	16.6	0.92	0.1	Note (1)
MSST Trucks and Vans	1.4	1.4	17.4	2.58	0.1	Note (2)

(1) These are national average emission factors using a fleet mix that is typical of commuter traffic.
These factors have not been refined to reflect local smog check programs, etc.
The fleet mix and emission factor calculation is done on the "Commute" sheet in this workbook.
(2) These are emission factors for Light-duty gasoline trucks (LDGV2, GVW 6000-8500 lbs)
The emission factor calculation is done on the "Commute" sheet in this workbook.

Estimated Emissions From Commuters in San Diego Intrastate AQCR

	NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	SOx ton/yr
Commuter Vehicles	0.93	1.08	13.36	0.74	0.07
MSST Trucks and Vans	0.35	0.35	4.54	0.68	0.03
Totals	1.28	1.43	17.90	1.42	0.09

See Assumptions section of this worksheet for discussion of vehicle miles traveled.

Total Estimated Annual Emissions From Proposed Action

	NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	SOx ton/yr
Annual	6.46	13.27	69.67	1.91	0.55

General Conformity De Minimis Thresholds

	NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	SOx ton/yr	
Annual	100.00	100.00	100.00	--	--	Subpart 1 O_3 Nonattainment, CO maintenance

Cells with "--" in them indicate federal attainment for this pollutant in this area. No conformity determination is necessary for this pollutant in this air basin.

General Conformity Regional Significance Thresholds (10% of regional budget)

Since future year budgets were not readily available, actual 1999 air emissions inventories for the counties were used as an approximation of the regional inventory. Because the Proposed Action is several orders of magnitude below significance, the conclusion would be the same, regardless of whether future year budget data set were used.

San Diego Intrastate AQCR Target Year Emissions Budgets

	Point and Area Sources Combined				
Year	**NOx (tpy)**	**VOC (tpy)**	**CO (tpy)**	**PM10 (tpy)**	**SO2 (tpy)**
1999	90,318	102,386	627,064	60,063	5,879

Source: USEPA-AirData NET Tier Report (http://www.epa.gov/air/data/nettier.html). Site visited on 10/13/04

Determination Significance (Significance Threshold = 10%)

Minimum -1999	90,318	102,386	627,064	60,063	5,879
Proposed Action %	**0.0072%**	**0.0130%**	**0.0111%**	**0.0032%**	**0.0094%**

ASSUMPTIONS:

Staff: 76 Active duty staff supporting the MSST will all be new staff.

Commute: Active duty staff live anywhere from 5 to 40 miles from the station.
An estimate of 20 miles commute each way should be conservative.

Boats: Six Safeboats International 25' Response Boat Small (RBS)

Motors: twin 225 HP Honda outboard motors

Fuel Use: There is not enough data to estimate daily fuel consumption, but it is known these boats consume 15 gal/hr when cruising at 35 knots. They expect to cruise at 35 knots up to 20% of the time as they go out to pick up escorts or return from escort missions, and as they relocate within the harbor area.
The boat holds 125 gallons of fuel.

Duty: Two boats on harbor duty. Lt Cooper says that 6 hr/day each would be a realistic estimate of how much time they will be running, rather than 12 hr/day.
Patrols may increase to 8-12 hours per day during military loadouts, but he would not anticipate a patrol of 48 consecutive hours (as previously assumed)
Two or three boats will be subject to deployment anywhere on Southern California Coast.
These boats will generally NOT cruise to their assignments but will be trailered to their assignments behind Ford F-350 gasoline pickups. I should assume that the trucks with boat trailers will travel out and back 15 days per month.

Tier Emissions Report - Criteria Air Pollutants

Geographic Area: San Diego Co, CA
Pollutant: Carbon Monoxide, Nitrogen Oxides, Particulate (size < 10 micrometers), Particulate (size < 2.5 micrometers), Sulfur Dioxide, Volatile Organic Compounds
Year: 1999
Emissions In Tons Per Year

		Area Source Emissions					Point Source Emissions				
State	County	CO	NOx	PM10	SO2	VOC	CO	NOx	PM10	SO2	VOC
CA	San Diego Co	619,935	86,728	58,082	5,805	98,287	7,129	3,590	1,981	73.9	4,099

Total Emissions (Area and Point Sources) TPY				
NOx	VOC	CO	PM10	SO2
90,318	102,386	627,064	60,063	5,879

SOURCE:
http://www.epa.gov/air/data/nettier.html
USEPA - AirData NET Tier Report
*Net Air pollution sources (area and point) in tons per year (1999)
Site visited on October 13, 2004

Commute Emissions Factors

This analysis has not been refined with site-specific effects of the local smog check program, assumptions for hot and cold starts, etc. National average emission factors are used as a first approximation.
The vehicle mix is considered generally representative of commuters, rather than a profile of vehicles used by this specific demographic of employees. If it is determined that the results of this analysis are critical to the Conformity Analysis, a more refined estimate will be generated.

Description of POV Fleet and VMT Contributions Assumed for This Analysis

Light-duty gasoline vehicles (passenger cars)
Light-duty gasoline trucks (SUVs, pickups GVW <6000 lb)
Light-duty gasoline trucks (GVW 6000-8500 lbs)
Light-duty diesel vehicles (passenger cars)
Light-duty diesel trucks (SUVs, pickups GVW <8500 lb)
Motorcycles

	POV VMT %	POV Avg Age
LDGV	64.2%	5
LDGT1	29.6%	5
LDGT2	5.2%	5
LDDV	0.3%	5
LDDT	0.5%	5
MC	0.2%	5
	100%	

EFs in g/mi from MOBILE5 Tables based on vehicle age in the year of interest

	POV Low Altitude g/mi - 2000					POV Low Altitude g/mi - 2005				
	CO	HC	NOx	SOx	PM	CO	HC	NOx	SOx	PM
LDGV	14.6	1.3	1	0.072	0.71	14.6	1	1	0.072	0.71
LDGT1	21.9	1.9	1.6	0.096	1.08	20.5	1.6	1.3	0.096	1.08
LDGT2	17.8	1.5	1.5	0.098	2.58	16.9	1.2	1.2	0.098	2.58
LDDV	1.4	0.5	1.1	0.116	0.8	1.4	0.5	1.1	0.116	0.8
LDDT	1.7	0.7	1.3	0.157	1.59	1.7	0.7	1.3	0.157	1.59
MC	22.1	4.7	0.9	0.032	0.08	22.1	4.7	0.9	0.032	0.08

Reference: Tables 4-2 through 4-53, (AF IERA, July 2001)

Weighted Average Factors - adjusted for VMT weighting by vehicle class

	POV Low Altitude g/mi - 2000					POV Low Altitude g/mi - 2005				
	CO	HC	NOx	SOx	PM	CO	HC	NOx	SOx	PM
LDGV	9.36935	0.83426	0.64174	0.04621	0.45563	9.3693542	0.64174	0.64174	0.04621	0.45563
LDGT1	6.48251	0.56241	0.47361	0.02842	0.31969	6.06810043	0.47361	0.38481	0.02842	0.31969
LDGT2	0.92505	0.07795	0.07795	0.00509	0.13408	0.8782783	0.06236	0.06236	0.00509	0.13408
LDDV	0.00438	0.00157	0.00344	0.00036	0.0025	0.00438328	0.00157	0.00344	0.00036	0.0025
LDDT	0.00811	0.00334	0.00621	0.00075	0.00759	0.00811435	0.00334	0.00621	0.00075	0.00759
MC	0.05272	0.01121	0.00215	7.6E-05	0.00019	0.05271565	0.01121	0.00215	7.6E-05	0.00019
Fleet Factors	**16.8421**	**1.49074**	**1.20509**	**0.0809**	**0.91968**	**16.3809462**	**1.19383**	**1.1007**	**0.0809**	**0.91968**

Fleet age data are assumed, and follow the "typical" example calculations provided in the IERA reference. The fleet age is assumed to stay constant. That is, the 'average' POV LDGV in 2000 is a 1995 model (5 years old), and the 'average' LDGV in the 2005 emission estimates is a 2000 model (five years old) Note that PM emission factors include both exhaust and "fugitive" emissions (paved road, brake & tire dust, etc.). National average motor vehicle emission factors generated by MOBILE5 are tabulated in the reference: "Air Emissions Inventory Guidance Document For Mobile Sources at Air Force Installations", July 2001 Air Force Institute for Environment, Safety and Occupational Health Risk Analysis, Risk Analysis Directorate Environmental Analysis Division, Brooks AFB, Texas.

Power Reqirements for MSST Boats

http://www.boatmotors.com/outboard/outboard_motor_article.html
Lambrecht, Ralph. 2002. "Two-stroke conventional wisdom." Boat & Motor Dealer. April. 34-37

Mr Lambrecht gave results from comparitive testing of 2002 model year 2-stroke outboards vs 4-stroke outboards. He did not cite who did the tests or what motors were tested. His point was that there is little difference in mileage and speed, and the 2-strokes meet emission standards.

	Calculations						
	gal/hr	gal/hr	Thermal Efficiency		Average	HP	HP
20.7' boat							
225 HP outboards							
4.5 to 4.7 mpg at 28 mph	6.0	6.2				70	73
2.7 to 3.2 mpg at 52 mph top speed	16.3	19.3	(a)	22.9%	22.9%		
24' boat							
225 HP outboards							
3.1 mpg at 32 mph	10.3	10.3				121	121
2.4 to 2.6 mpg at 46 to 48 mph top speed	18.5	19.2	23.9%	23.0%	23.4%		
20" boat							
135 HP outboards							
4 to 4.2 mpg at 21 mph	5.0	5.3				55	58
3 to 3.5 mpg at 37 to 43 mph top speed	12.3	12.3	21.5%	21.4%	21.5%		
4.45 mpg at 28 mph (best economy)	6.3	6.3					

If we assume that the engines were putting out rated horsepower at top speed, then we can compute the thermal efficiency of these outboards based on the gallon per hour throughput and the rated output. Gasoline has 130,000 Btu/gal and there are 2546.5 Btus in a horsepower-hour.

a) The 3.2 mpg at 52 mph cannot be used in efficiency calculations because this was not the maximum speed for this engine/boat combination, so the engine was putting out less than 225 HP, and there is no way to know how many HP it was producing, so the thermal efficiency cannot be computed.

Overall Average Thermal Efficiency
22.6%

For the 200 HP engines used in this analysis, a 23% thermal efficiency will be assumed.

The power demand is hard to predict, because gas mileage likely starts fairly high at really low speeds, then dips somewhere in the 10-20 mph range, then maxes out at around 30 mph as the boat rises out of the water, then drops again as the boat approaches maximum speed.

From what I am seeing so far, my initial 50 HP guess for patrol load may have been accurate. Howerver, to accommodate averaging in occasional relocations at above planing speed, I will assume an average load of 75 HP over the 12 hour day.

Average power output based on fuel consumption while on patrol:

Chief Petty Officer Mark Wilkins (Galveston) said on 11/26/02 that they use about 45 gal in a 12-hour day.

$$\frac{(3.75\ \text{gal/hr})\ (130{,}000\ \text{Btu/gal})\ (22.6\%\ \text{thermal efficiency})}{3413\ \text{Btu/kW-hr}} = 32.28\ \text{kW}$$

$$= 43.30\ \text{HP}$$

APPENDIX F

PROTECTED AND SENSITIVE HABITATS IN THE REGION

San Diego National Wildlife Refuge Complex

Beginning in 1972, a series of small National Wildlife Refuges - Seal Beach, Tijuana Slough, and Sweetwater Marsh were established to preserve and protect the rare birds of southern California's coastal marshes. In the mid-1990s San Diegans joined with state and federal agencies to protect larger areas of open space in the coastal uplands, rare vernal pool wetlands, and in San Diego Bay. The San Diego National Wildlife Refuge was created to support the Multiple Species Conservation Program, a landscape-wide conservation effort to preserve the rich biological diversity and quality of life for which the region is famous.

The San Diego Refuge Complex's goals are to preserve and recover endangered species; protect migratory bird habitat; preserve the region's unique biological diversity; and provide visitors with high quality opportunities for wildlife-dependent activities. All of the refuges in the San Diego Refuge Complex have been designated "Globally Important Bird Areas" by the American Bird Conservancy and our newest refuge, South San Diego Bay, was recently designated as a Western Hemisphere Shorebird Reserve site.

Sweetwater Marsh. Like its wetland neighbors to the south, Sweetwater Marsh supports many of the same animals and plants as the Tijuana Slough and South Bay Refuges. Palmer's Frankenia, a rare salt marsh plant, can also be found on this refuge. Surrounded by numerous gardens, the Chula Vista Nature Center soars like an ark above the 316 acre Sweetwater Marsh. The Nature Center provides visitors with interpretive and interactive exhibits explaining the marsh habitat, self-guided environmental education programs, guided nature and bird walks, a shark and ray exhibit, and the opportunity to view native birds in outdoor aviaries that support burrowing owls, shorebirds, egrets and herons. Aviary dwellers are all birds that cannot be released back into their native habitats.

South Bay. The South Bay Unit was dedicated in June 1999, following over 20 years of lobbying by San Diego's environmental community. With 90 to 100 % of submerged lands, intertidal mudflats, and salt marshes having been eliminated in the north and central Bay, the new South Bay refuge will preserve and restore the remaining wetlands, mudflats and eel grass beds to ensure that the bay's thousands of migrating and resident shorebirds and waterfowl will survive into the next century. The approved refuge boundary is 3,940 acres.

The bay supports numerous endangered and threatened species of plants and animals and is a vital link to other wildlife areas. Rare eel grass beds, thousands of resident and over-wintering waterfowl, seabirds, shorebirds and the largest contiguous mud-flat in southern California make this refuge a supermarket for avifauna, and an important stop on the Pacific Flyway.

Tijuana Slough NWR. Home to many endangered birds and one endangered plant, this beautiful 1,051-acre wetland where the Tijuana River meets the sea is southern California's only coastal lagoon not bisected by roads and rail lines. The refuge is also part of the Tijuana River National Estuarine Research Reserve (NERR), one of only 25 estuaries in the entire NERR system. Tijuana Slough's habitats include open water, tidal salt marsh, beach dune, riparian, vernal pool and upland surrounded by residential neighborhoods.

Over 370 species of birds have been recorded on the refuge and in the adjacent river valley. The endangered California Least Tern, Least Bell's Vireo, California Brown Pelican, Light-footed Clapper Rail and an endangered plant, Salt Marsh Bird's Beak can all be found on the refuge. The Western Snowy Plover, a threatened species, is a year round resident and nests on refuge beaches.

San Diego National Wildlife Refuge

The San Diego NWR is located in southwestern San Diego County, and currently includes approximately 9,478 acres. Established in 1997, the San Diego Refuge serves to protect, enhance, and restore habitats for endangered species, migratory birds, and rare plants and animals found in a variety of habitats. It conserves the biological diversity of San Diego County and provides important habitat for a significant number of endangered birds. It has also been designated a Globally Important Bird Area by the American Bird Conservancy.

The San Diego NWR is also the site of numerous vernal pools, which are an extremely scarce wetland habitat type occurring only where certain soil conditions are present. In late summer, fall and early winter, vernal pools appear as dry, dusty indentations mostly devoid of vegetation. In late winter, a spectacular transformation occurs. As these depressions fill with water, high numbers of endangered, rare and sensitive species of plants and animals appear in and around the pools, many of which can only be found in this system. In summer, these temporary wetlands dry out completely until the cycle of life begins again with the onset of winter rains. These ancient pools have survived for at least 125,000 years, and perhaps as long as 400,000 years. It was only in the 1980's that their number drastically diminished. Today 3% the region's vernal pools remain.

Most importantly, the refuge is the cornerstone of conservation and habitat protection efforts by the partners and cooperators of the State of California Natural Communities Conservation Planning Program and San Diego's Multiple Species Conservation Plan. These plans provide an umbrella for implementing recovery actions of sensitive species and reduce the need to list additional species in southwestern San Diego County.

Current habitat management activities include: monitoring the distribution and abundance of rare and/or protected species, controlling invasive species; restoring disturbed habitats impacted by public use and grazing; enhancing habitats for listed species, suppressing wildfires, controlling pests and parasites, fencing, and monitoring of exotic and endangered species.

Tijuana River National Estuarine Research Reserve (NERR).

The Tijuana Estuary retains natural, daily tidal flushing and is one of only two intact estuaries in Southern California. Encompassing 2,500 acres, the Tijuana Estuary is the endpoint of the binational 1,735 square-mile Tijuana River Watershed, two-thirds of which is in Mexico, including most of Tijuana and all of Tecate. The Estuary is an essential breeding, feeding, and nesting area for resident birds and for the thousands of migratory birds moving along the Pacific Flyway. Over 370 species of birds have been documented in the Reserve, some of which are endangered and threatened. The light-footed clapper rail, a resident bird that depends on marsh cordgrass and may be the most endangered bird in Southern California, is found here in numbers unlike any other wetland is San Diego County.

There are a variety of habitats within the Reserve boundary, including dunes, salt pannes, salt marsh, mudflats, brackish ponds, riparian, coastal sage scrub, and vernal pools. Just a few inches of elevation change determine which plant communities will dominate. The diversity of habitats all in one small area provides excellent examples of the plant communities of Southern California. The Estuary has been a major wetland research site for over three decades. Regular research and monitoring of fish, benthic invertebrates, vegetation, birds, and water quality has contributed to an improved understanding of estuarine processes and restoration possibilities. The Visitor Center provides free scheduled interpretive programs for children and adults, videos, art classes and guided field trips. At the Visitor Center, a variety of permanent exhibits and an award winning native plant garden entertain and educate. Visitor Center displays highlight estuary flora and fauna, estuarine ecology, and natural processes. The Reserve offers miles of trails, taking visitors into prime bird-watching areas and to the mouth of the Tijuana River.

Cabrillo National Monument

On September 28, 1542, Juan Rodríguez Cabrillo landed at San Diego Bay, marking the first time that a European expedition had set foot on what later became the west coast of the United States. His accomplishments were memorialized on October 14, 1913 with the establishment of Cabrillo National Monument.

The park offers a superb view of San Diego's harbor and skyline. At the highest point of the park stands the Old Point Loma Lighthouse, which has been a San Diego icon since 1854. A statue and museum in the Visitor Center commemorate Juan Rodríguez Cabrillo's exploration of the coast of California. In a former army building an exhibit tells the story of the coast artillery on Point Loma. In the winter, migrating gray whales can be seen off the coast. Native coastal sage scrub habitat occurs along the Bayside Trail, and the west side of the park contains a small stretch of rocky intertidal coastline.